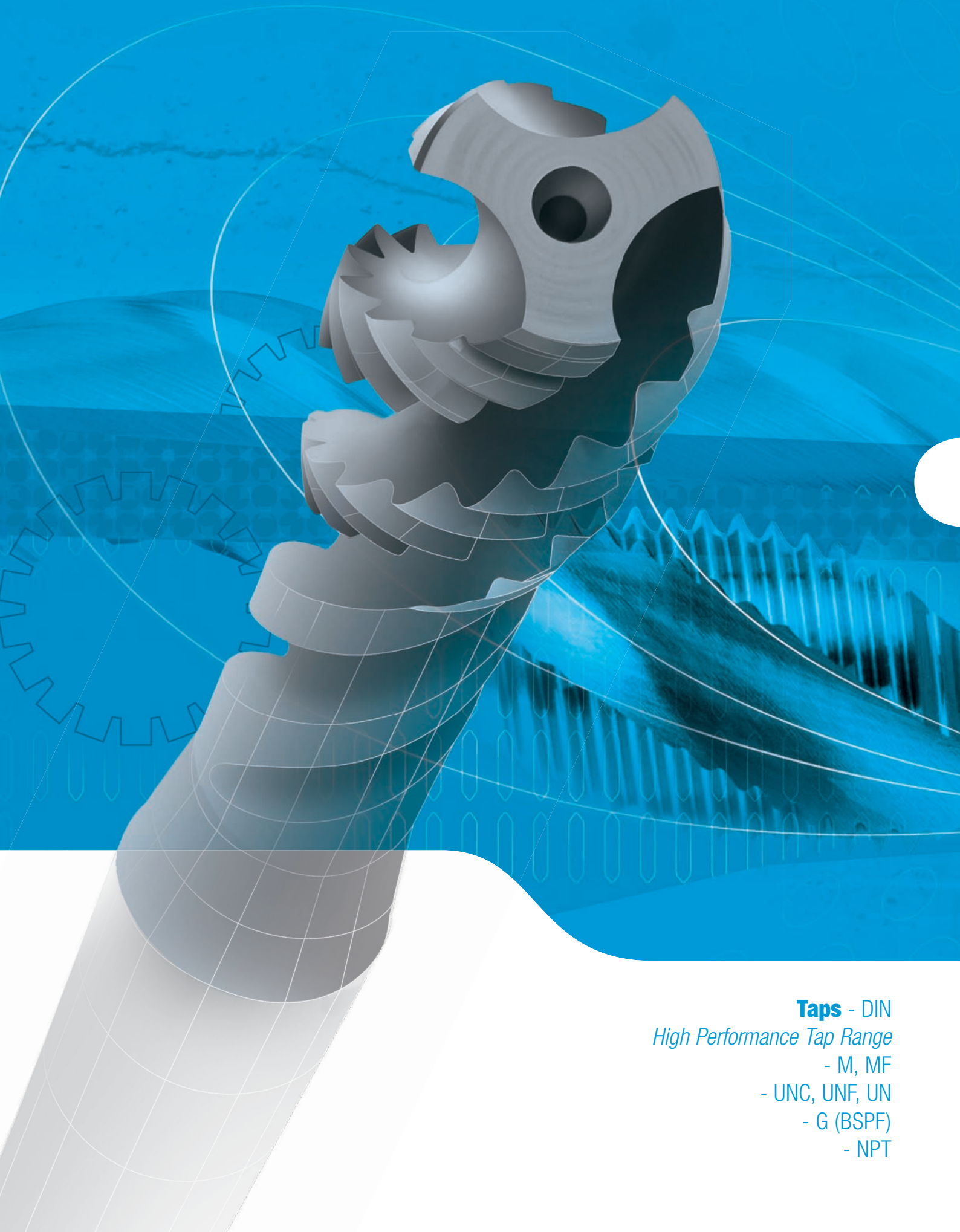


TAPS



Taps - DIN

High Performance Tap Range

- M, MF

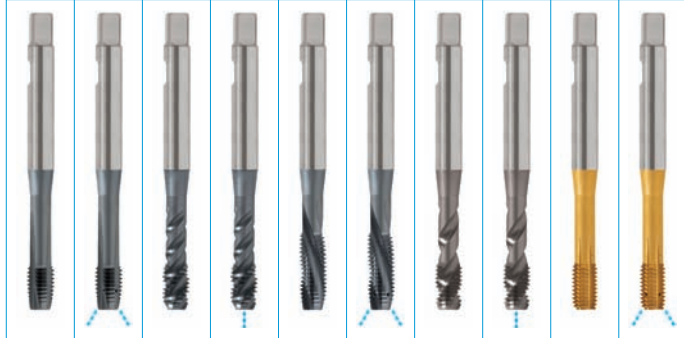
- UNC, UNF, UN

- G (BSPF)

- NPT



	Synchro Gain	Synchro Gain, IK	Synchro Spiral Flute, R30	Synchro Spiral Flute, R30, IK	Synchro Spiral Flute, L20	Synchro Spiral Flute, L20, IK	Synchro Spiral Flute, R45-All	Synchro Spiral Flute, R45-All, IK	Synchro Forming	Synchro Forming, IK
Page	153	153	154	154	155	155	156	156	157	157



Catalogue Code	T377	T379	T373	T375	T365	T367	T369	T371	T381	T383
Material	PM-HSSE V3									
Surface Finish	TiCN					CrN			TiN	
Application	High Speed Cutting									
Tapping Depth	3 x Ø									
Material	6HX									

Material	HB	N/mm ²	% Elong.	T377	T379	T373	T375	T365	T367	T369	T371	T381	T383
1.0 Steels													
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●	●	●	●	●	○	○	●	●
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●	●	●	●	●			●	●
1.3 Plain carbon, low allowed	<300	>350 <850	20	●	●	●	●	●	●			○	○
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	●	●	●	●	●	●				
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	○	○	○	○	○	○				
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12	○	○	○	○	○	○				
1.7 Hardened Steel 45-50 Rc	<550		<12										
1.8 Hardened Steel 50-62 Rc	<700		<12										
2.0 Stainless Steels													
2.1 Free machining	<250	<850	25	●	●	●	●	●	●			●	●
2.2 Austenitic	<250	<850	20	●	●	●	●	●	●			●	●
2.3 Ferritic + martensitic	<250	<850	20	●	●	●	●	●	●				
3.0 Cast Irons													
3.1 Lamellar graphite (Grey soft)	<150	<500	10	●	●	○	○	●	●				
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	○	○	○	○	○	○				
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	○	○	○	○	○	○				
4.0 Titaniums													
4.1 Pure Titanium	<250	<850	20	●	●	●	●	●	●				
4.2 Titanium alloys	>250	>850	20	●	●	●	●	●	●				
5.0 Nickels													
5.1 Nickel alloys	<250	<850	25	●	●	●	●	●	●				
5.2 Nickel alloys	>250	>850	25										
6.0 Coppers													
6.1 Pure Copper (electrolytic copper)	<120	<400	12	●	●	○	○	●	●	●	●	●	●
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	○	○	○	○	○	●	●		
6.3 Long chip Brass, Bronze	<200	<700	12	●	●	○	○	●	●	●	●		
7.0 Aluminiums													
7.1 Aluminium unalloyed	<100	<350	15	●	●	●	●	●	●	●	●	●	●
7.2 Magnesium unalloyed	<150	<350	15	●	●	○	○	●	●	●	●	●	●
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	●	●	○	○	●	●	●	●	●	●
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	●	●	○	○	●	●	●	●	●	●
7.5 Al Alloyed > 10% Si	-	<400	N	○	○	●	●	○	○	○	○		
7.6 Magnesium alloys	-	<400	N	○	○	●	●	○	○	○	○		
8.0 Plastics													
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	●	●	○	○	●	●	●	●		

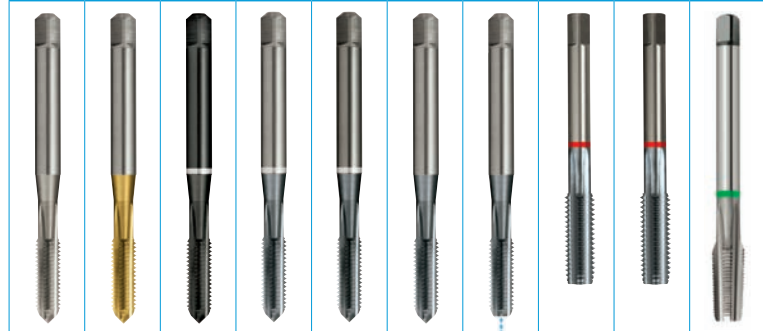
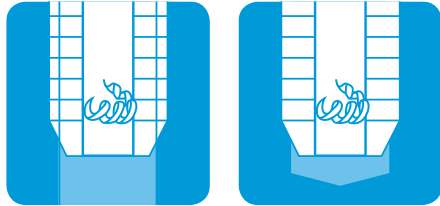


Page

M
MF
UNC
UNF
G (BSPF)
NPT

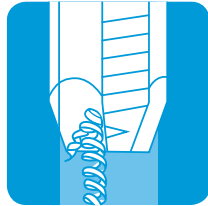
	Tap Straight Flute, N	Tap Straight Flute, N	Tap Straight Flute, GG	Tap Straight Flute, GG	Tap Straight Flute, GG	Tap Straight Flute, DC	Tap Straight Flute, DC, IK	Tap Straight Flute, VH	Tap Straight Flute, VH	Tap Straight Flute, UNI
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160	160	162	162	162	164	164	166	167		
226	226	227	227		228	228	229	231		
		242	242							
274	274	275	275							
										284



Material	HSSE V3			VHM	PM-HSS Co	SPM	VHM	HSSE V3
Surface Finish	Brt	TiN	Ni+Blu	TiCN			Brt	
Colour Ring & Application	N		GG		DC	XH	VH	UNI
Tapping Depth	≤ 1.5xØ		≤ 3xØ		≤ 1.5xØ			
Material Limit & Nut Tolerance	ISO 2 / 6H		6HX	6H	6HX			ANSI B1.20.1

Material	HB	N/mm²	% Elong.									
1.0 Steels												
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●							●
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●							●
1.3 Plain carbon, low allowed	<300	>350 <850	20	●	●							●
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	○	○					○		●
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	○	○					○		○
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12							●	○	○
1.7 Hardened Steel 45-50 Rc	<550		<12							●	●	
1.8 Hardened Steel 50-62 Rc	<700		<12								●	
2.0 Stainless Steels												
2.1 Free machining	<250	<850	25									○
2.2 Austenitic	<250	<850	20									○
2.3 Ferritic + martensitic	<250	<850	20									○
3.0 Cast Irons												
3.1 Lamellar graphite (Grey soft)	<150	<500	10	○	○	●	●	●	○	○		○
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	○	○	●	●	●	○	○		○
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	○	○	○	○	●	○	○		○
4.0 Titaniums												
4.1 Pure Titanium	<250	<850	20									
4.2 Titanium alloys	>250	>850	20									
5.0 Nickels												
5.1 Nickel alloys	<250	<850	25									
5.2 Nickel alloys	>250	>850	25									
6.0 Coppers												
6.1 Pure Copper (electrolytic copper)	<120	<400	12	○	○							○
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	○		●	○	○	○	○	○
6.3 Long chip Brass, Bronze	<200	<700	12	○	○							●
7.0 Aluminiums												
7.1 Aluminium unalloyed	<100	<350	15	○	○							●
7.2 Magnesium unalloyed	<150	<350	15	○	○							●
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	○	○				○	○		○
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○	○				●	●		○
7.5 Al Alloyed > 10% Si	-	<400	N			○	●	●	●			
7.6 Magnesium alloys	-	<400	N			○	●	●	●			
8.0 Plastics												
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	●	●		●	●	●			○



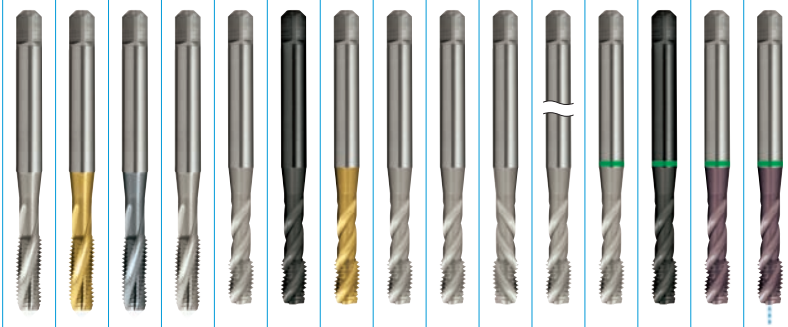
	Tap Gun, N	Tap Gun, N	Tap Gun, N	Tap Gun, N	Tap Gun, N	Tap Gun, N	Tap Gun, M, Left Hand	Tap Gun, M, Extra Length	Tap Gun, UNI	Tap Gun, UNI	Tap Gun, UNI	Tap Gun, UNI, IK	
Page	168	168	168	170	170	170	172	174	174	174	174	174	
M	232	232	232	232				234		234			
MF	244	244	244	244					246	246			
UNC	264		264	264									
UNF	276	276	276										
G (BSPF)													
Material	HSSE V3						PM-HSSE V3						
Surface Finish	Brt	Blu	TiN	Brt			Blu			TiAlN			
Colour Ring & Application	N								UNI				
Tapping Depth	≤ 3xØ												
Material	ISO 2 / 6H			ISO 3/6G			ISO 1/4H			ISO 2 / 6H			
Limit & Nut Tolerance													
1.0 Steels	HB	N/mm ²	% Elong.										
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●	●	●	●	●	●	●	●	●
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●	●	●	●	●	●	●	●	●
1.3 Plain carbon, low allowed	<300	>350 <850	20	○	●	●	○	○	○	○	●	●	●
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	○	○	●	○	○	○	○	●	●	●
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30								○	●	●
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12								○	○	○
1.7 Hardened Steel 45-50 Rc	<550		<12										
1.8 Hardened Steel 50-62 Rc	<700		<12										
2.0 Stainless Steels													
2.1 Free machining	<250	<850	25		○	○				○	○	●	●
2.2 Austenitic	<250	<850	20		○	○				○	○	○	●
2.3 Ferritic + martensitic	<250	<850	20		○	○				○	○	○	○
3.0 Cast Irons													
3.1 Lamellar graphite (Grey soft)	<150	<500	10	○	○	○	N	○	○	○	○	○	○
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	○	○	○	○	○	○	○	○	○	○
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	○	○	○	○	○	○	○	○	○	○
4.0 Titaniums													
4.1 Pure Titanium	<250	<850	20										
4.2 Titanium alloys	>250	>850	20										
5.0 Nickels													
5.1 Nickel alloys	<250	<850	25										
5.2 Nickel alloys	>250	>850	25										
6.0 Coppers													
6.1 Pure Copper (electrolytic copper)	<120	<400	12							○		○	○
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○		○	○	○	○	○		○	○
6.3 Long chip Brass, Bronze	<200	<700	12	○		●	○	○	○	○	●	●	●
7.0 Aluminiums													
7.1 Aluminium unalloyed	<100	<350	15	○		○	○	○	○	○		○	○
7.2 Magnesium unalloyed	<150	<350	15	○		○	○	○	○	○		○	○
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	○		○	○	○	○	○		○	○
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○		○	○	○	○	○		○	○
7.5 Al Alloyed > 10% Si	-	<400	N									○	○
7.6 Magnesium alloys	-	<400	N										
8.0 Plastics													
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	●	●	●	●	●	●	●	●	●	●

Tapp Gun, W	Tapp Gun, W	Tapp Gun, Cu	Tapp Gun, W-AZ	Tapp Gun, W-AZ	Tapp Gun, VA	Tapp Gun, VA	Tapp Gun, VA	Tapp Gun, VA PM	Tapp Gun, VA PM	Tapp Gun, VA PM	Tapp Gun, VA PM, IK	Tapp Gun, VADH	Tapp Gun, H	Tapp Gun, H	Tapp Gun, H, IK	Tapp Gun, Ti	Tapp Gun, Ni
176	176	176	178	178	180	180	180	182	182	182	182	184	186	186	186	188	190
					235		235	236	236				250	250			
					248		248										
					266		266										
					277		277	278	278								
HSSE V3								PM-HSSE V3					PM-HSS Co				
Ni	Blu	CrN	Brt	TiN	Blu	TiCN	Blu	TiCN	Blu	TiCN	Blu	TiCN	Brt	TiCN	Brt		
W		Cu	Sticky Material				VA			VA PM		VADH		H		Ti	Ni
$\leq 3x0$																	
$\leq 1.5x0$																	
ISO 2 / 6H					ISO 3 / 6G	ISO 2 / 6H	6HX	6GX	6GX	6GX	6GX	6GX	6GX	6GX	6GX	ISO 1 / 4H	6HX
•	•		○	○	•	•	•	•	•	•	•	•					
○	•		○	○	•	•	•	•	•	•	•	•	○	○	○		
○	○		○	○	○	○	○	○	○	○	○	○	•	•	•		
○	○		○	○	○	○	○	○	○	○	○	○	•	•	•		
			○	○	○	○	○	○	○	○	○	○	•	•	•		
													○	○	○		
													○	○	○	•	
													○	○	○	•	
													○	○	○	•	
													○	○	○	•	
													○	○	○	•	
													○	○	○	•	
○		•	•	•			○		○		○	○					
○		○											○	•	•		
○		•	○	○			○		○		○	○					
•		•	•	•			○		○		○	○					
•		•	•	•			○		○		○	○					
•		•	•	•			○		○		○	○					
○		○	○	○			○		○		○	○			○	○	
○		○	○	○			○		○		○	○			○	○	
•	○	•	○	•	○	○	○	○	○	○	○	○					



Tap - Spiral Flute, R15° N
Tap - Spiral Flute, R15° N
Tap - Spiral Flute, R15° N
Tap - Spiral Flute, R15° N
Tap - Spiral Flute, R40° N
Tap - Spiral Flute, R40° N
Tap - Spiral Flute, R40° N
Tap - Spiral Flute, R40° N
Tap - Spiral Flute, R40° N
Tap - Spiral Flute, L, R40° N
Tap - Spiral Flute, R40° N, Extra Length
Tap - Spiral Flute, R40° UNI
Tap - Spiral Flute, R40° UNI
Tap - Spiral Flute, R40° UNI, IK

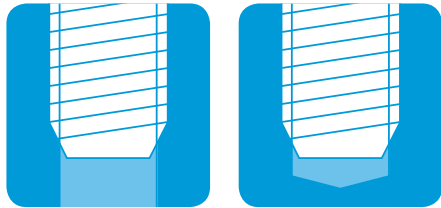
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	MF	237	237			238	238	238	238				239			239
	UNC	252	252		252	254	254	254	254					256	256	
	UNF	268				270										
	G (BSPF)	279	279	279		280	280	280								



Material	HSSE V3								PM-HSSE V3					
Surface Finish	Br	TIN	TICN	Br	Blu	TIN	Br				Blu	TiAIN		
Colour Ring & Application	N											UNI		
Tapping Depth	≤ 1.5xØ						≤ 3xØ							
Material	ISO 2 / 6H		ISO 228	3B	ISO 2 / 6H		ISO 3 / ISO 1 / 66		ISO 1 / 4H		ISO 2 / 6H			

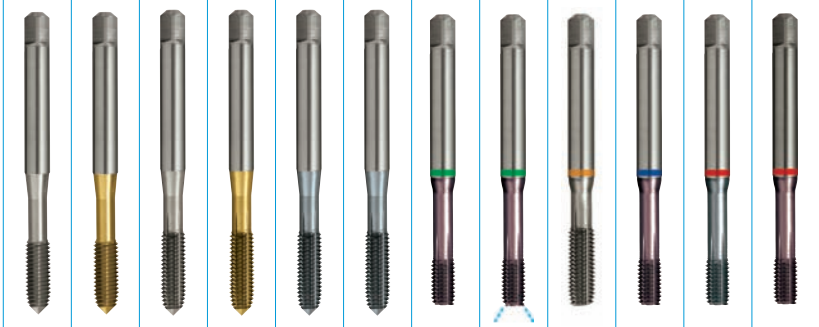
Material	HB	N/mm ²	% Elong.	ISO 2 / 6H	ISO 228	3B	ISO 2 / 6H	ISO 3 / ISO 1 / 66	ISO 1 / 4H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	
1.0 Steels																
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●	●	●	●	●	●	●	●	●	●	●	
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●	●	●	●	●	●	●	●	●	●	●	
1.3 Plain carbon, low allowed	<300	>350 <850	20	○	●	○	○	●	○	○	○	○	●	●	●	
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	○	○	○	○	●	○	○	○	○	●	●	●	
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	○	○	○		○					○	●	●	
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12											○	○	
1.7 Hardened Steel 45-50 Rc	<550		<12													
1.8 Hardened Steel 50-62 Rc	<700		<12													
2.0 Stainless Steels																
2.1 Free machining	<250	<850	25		○	○		○	○	○	○	○	○	○	○	●
2.2 Austenitic	<250	<850	20		○	○		○	○	○	○	○	○	○	○	●
2.3 Ferritic + martensitic	<250	<850	20		○	○		○	○				○	○	○	
3.0 Cast Irons																
3.1 Lamellar graphite (Grey soft)	<150	<500	10	○	○	●	○	○	○	○	○	○	○	○	●	●
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	○	○	○	○	○	○	○	○	○	○	○	○	○
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	○	○	○	○	○	○	○	○	○	○	○	○	○
4.0 Titaniums																
4.1 Pure Titanium	<250	<850	20		○	○										
4.2 Titanium alloys	>250	>850	20		○	○										
5.0 Nickels																
5.1 Nickel alloys	<250	<850	25		○	○										
5.2 Nickel alloys	>250	>850	25													
6.0 Coppers																
6.1 Pure Copper (electrolytic copper)	<120	<400	12												○	○
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	○	○	○	○	○	○	○	○	○	○	○	○
6.3 Long chip Brass, Bronze	<200	<700	12	○	○	○	○	○	○	○	○	○	○	○	○	○
7.0 Aluminiums																
7.1 Aluminium unalloyed	<100	<350	15	○	○	○	○	○	○	○	○	○	○	○	○	○
7.2 Magnesium unalloyed	<150	<350	15	○	○	○	○	○	○	○	○	○	○	○	○	○
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	○	○	○	○	○	○	○	○	○	○	○	○	○
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○	○	○	○	○	○	○	○	○	○	○	○	○
7.5 Al Alloyed > 10% Si	-	<400	N			○									○	○
7.6 Magnesium alloys	-	<400	N			○									○	○
8.0 Plastics																
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	●	●	●	●	●	●	●	●	●	●	●	●	●

Tap - Spiral Flute, R45-Al		Tap - Spiral Flute, R45-Al		Tap - Spiral Flute, R45 W		Tap - Spiral Flute, R45 W		Tap - Spiral Flute, R45 W		Tap - Spiral Flute, R45 Cu		Tap - Spiral Flute, R45 VADH		Tap - Spiral Flute, R45 VADH		Tap - Spiral Flute, R45 VADH		Tap - Spiral Flute, R50 VA PM		Tap - Spiral Flute, R50 VA PM		Tap - Spiral Flute, R50 VA PM		Tap - Spiral Flute, R50 VA PM		Tap - Spiral Flute, R50 VA PM, IK		Tap - Spiral Flute, R40 VA, 8UN		Tap - Spiral Flute, R40 VA, 8UN		Tap - Spiral Flute, R15 H		Tap - Spiral Flute, R15 H		Tap - Spiral Flute, R15 H, IK		Tap - Spiral Flute, R10 Ni				
202	202	204	204	204	204	206	206	206	208	208	208	208	210			212	212	212	214	216																						
						240		240	241	241															260	260	262	262														
						258		258																																		
						272		272																																		
						281		281	282	282																																
HSSE V3											PM-HSSE V3						HSSE V3		PM-HSS Co																							
Brt	CrN	Brt	Blu	TiN	CrN	Blu	TiCN	Blu	TiCN				Brt	TiCN	Blu	TiCN		Brt																								
Al		W			Cu	VA			VAPM				VA	H			Ti	Ni																								
$\leq 3x0$											$\leq 2x0$		$\leq 1.5x0$																													
ISO 2 / 6H						ISO 3 / 6G	ISO 2 / 6H	6HX	6GX	6HX		2B	ISO 2 / 6HX		ISO 1 / 4H	ISO 2 / 6HX																										



		Tap Forming	Tap Forming	Tap Forming, Multi Coolant Groove	Tap Forming, Multi Coolant Groove	Tap Forming, Multi Coolant Groove	Tap Forming, Multi Coolant Groove	Tap Forming, UNI	Tap Forming, UNI, IK	Tap Forming, Cu	Tap Forming, IA	Tap Forming, H	Tap Forming, IH
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Page	M	218	218	220		220	220	222	222	222	222	224	224
	MF												
	UNC												
	UNF												
	G (BSPF)		283	283		283							

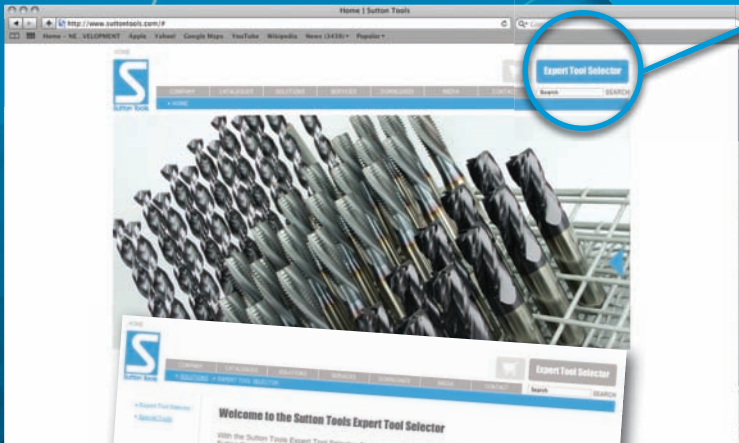


Material	HSSE V3					SPM		HSSE V3		SPM	VHM
Surface Finish	Brt	TiN	Brt	TiN	TiCN	TiAlN	CrN	TiAlN	TiCN	TiAlN	
Colour Ring & Application	N					UNI	Cu	VA	H	H	
Tapping Depth	≤ 1.5xØ					≤ 3xØ					
Material Limit & Nut Tolerance	6HX		6GX			6HX					

Material	HB	N/mm²	% Elong.											
1.0 Steels														
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	○	●	●	●	●	●	●	●	●	○	●
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	○	●	○	●	●	●	●	●	●	○	●
1.3 Plain carbon, low allowed	<300	>350 <850	20		○	○	○	●	○	●	●	○	●	●
1.4 Alloy steels harden. / tempered	<250	>500 <850	30						○	○			●	●
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30											
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12											
1.7 Hardened Steel 45-50 Rc	<550		<12											
1.8 Hardened Steel 50-62 Rc	<700		<12											
2.0 Stainless Steels														
2.1 Free machining	<250	<850	25		●		●	●	●	●	●		●	○
2.2 Austenitic	<250	<850	20		●		●	●	●	●	●		●	○
2.3 Ferritic + martensitic	<250	<850	20										●	○
3.0 Cast Irons														
3.1 Lamellar graphite (Grey soft)	<150	<500	10											
3.2 Lamellar graphite (Grey hard)	<300	<1000	10											
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10											●
4.0 Titaniums														
4.1 Pure Titanium	<250	<850	20											
4.2 Titanium alloys	>250	>850	20											
5.0 Nickels														
5.1 Nickel alloys	<250	<850	25											
5.2 Nickel alloys	>250	>850	25											
6.0 Coppers														
6.1 Pure Copper (electrolytic copper)	<120	<400	12	○	○	○	○	○	○	○	○	○	○	●
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12										○	○
6.3 Long chip Brass, Bronze	<200	<700	12	●	●	○	●	●	●	●	●	○		●
7.0 Aluminiums														
7.1 Aluminium unalloyed	<100	<350	15	●	●	●	●	●	●	●	●	○		●
7.2 Magnesium unalloyed	<150	<350	15	●	○	●	○	○	○	○	○	○	○	●
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	●	○	○	○	○	○	○	○	○	○	●
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○	○	○	○	○	○	○	○	○	○	●
7.5 Al Alloyed > 10% Si	-	<400	N					○				○		●
7.6 Magnesium alloys	-	<400	N											●
8.0 Plastics														
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N											

online material based product selection...

Expert Tool Selector



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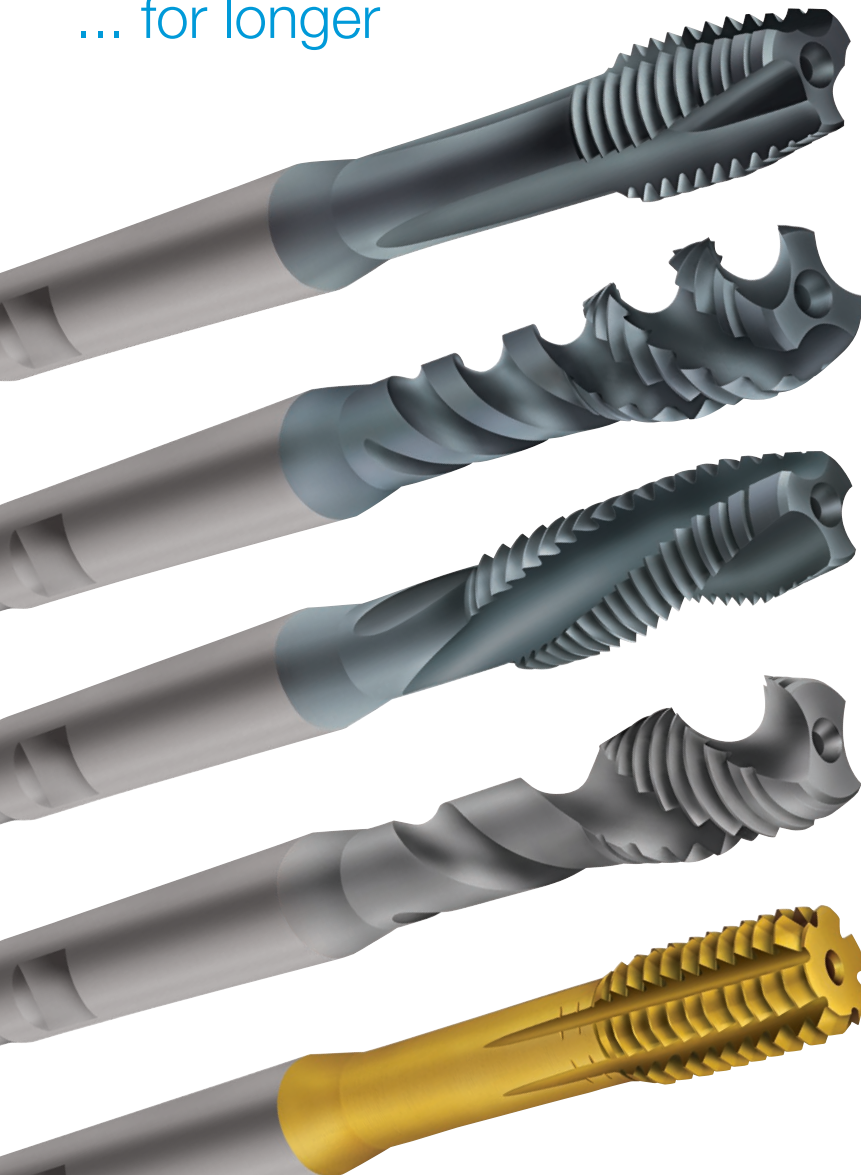
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Tapping Just Got Faster...

... for longer



Gun Synchro

Through holes in general, heat treatable & stainless steels, aluminum, and copper alloys

R50 Synchro

Blind holes in general, heat treatable & stainless steels,

L20 Synchro

Through holes with interruptions or angular exit in general, heat treatable & stainless steels, aluminum, and copper alloys

R45 Synchro

Blind holes in wrought and low silicon aluminums, and copper alloys

RLC Synchro

Forming blind or through holes in general, heat treatable & stainless steels, aluminum, and copper alloys

Case Study

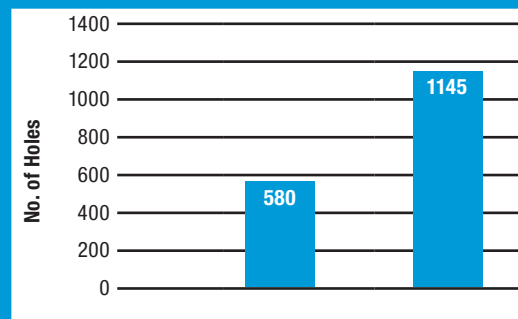
Material: AISI 4140/ 1.7223 / 41CrMo4
Tap size: M6
Drill size: 5.1
Depth: 12mm (blind hole)
Machine: Haas VF2-SS
Lubrication: Emulsion 7%

Comments:

- Synchro taps reduce costs & cycle time
- With the additional use of Synchroflex holder, approx 100% longer tap life was achieved.

Inputs:

Vc (m/min)	12	25
Pitch	1	1
Size	M6	M6
RPM	636	1325
Feed (mm/min)	636	1325
Depth	12	12

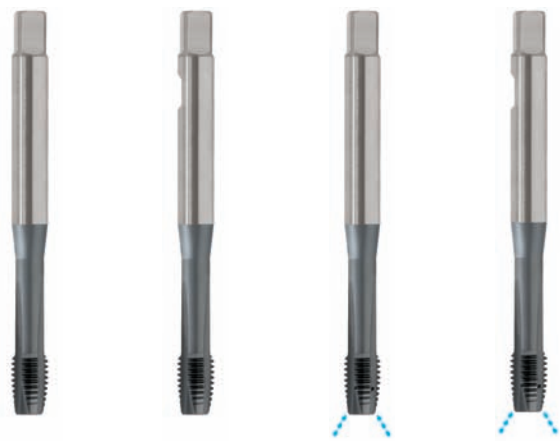
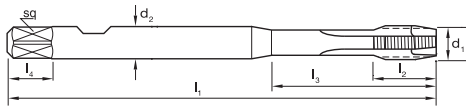


Tap type	R40-N TiN	R50 Sync TiCN
Material:	HSSE-V	PM-HSSE
Vc:	12m/min	25m/min
Tapping process:	Floating holder	Rigid holder
Holder type:	with length compensation	Tapmatic Synchroflex
Machine hourly rate:	€90.00	€90.00
Tool Cost:	€14.90	€25.20
Time/hole(secs):	5.7	2.7
Cost per hole:	€0.17	€0.09

Taps Metric, Synchro, Gun



- For high speed and precision tapping
- For rigid tapping in CNC machines with synchronised feed
- Suitable for materials up to 850N/mm²
- Through holes up to 3 x d₁
- h6 endmill shank



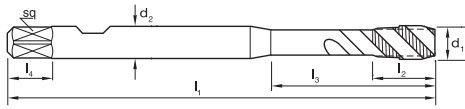
Catalogue Code												T376	T377	T378	T379
Discount Group												D0412	D0412	D0412	D0412
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												TICN	TICN	TICN	TICN
Geometry														Internal Coolant	Internal Coolant
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Shank Form (~DIN 1835)												A	B	A	B
Limit & Nut Tolerance												6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	4	8	6.0	4.9	8.0	3	1.6	•	T377 0200				
M 2.5	x 0.45	50	5	10	6.0	4.9	8.0	3	2.1	•	T377 0250				
M 3	x 0.50	56	5	11	6.0	4.9	8.0	3	2.5	•	T377 0300				
M 4	x 0.70	63	7	15	6.0	4.9	8.0	3	3.3	•	T377 0400				
M 5	x 0.80	70	8	21	6.0	4.9	8.0	3	4.2	•	T377 0500	•	T379 0500		
M 6	x 1.00	80	10	28	6.0	4.9	8.0	3	5.0	•	T377 0600	•	T379 0600		
M 8	x 1.25	90	13	30	8.0	6.2	9.0	3	6.8	•	T377 0800	•	T379 0800		
M 10	x 1.50	100	15	39	10.0	8.0	11.0	3	8.5	•	T377 1000	•	T379 1000		
M 12	x 1.75	110	18	45	12.0	9.0	12.0	3	10.3	•	T377 1200	•	T379 1200		
M 14	x 2.00	110	20	44	14.0	11.0	14.0	3	12.0	•	T377 1400	•	T379 1400		
M 16	x 2.00	110	20	44	16.0	12.0	15.0	4	14.0	•	T377 1600	•	T379 1600		
M 18	x 2.50	125	25	-	16.0	12.0	15.0	4	15.5	•	T377 1800	•	T379 1800		
M 20	x 2.50	140	25	-	16.0	12.0	15.0	4	17.5	•	T377 2000	•	T379 2000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Synchro, Spiral Flute, R50



- For high speed and precision tapping
- For rigid tapping in CNC machines with synchronised feed
- Suitable for materials up to 850N/mm²
- Blind holes up to 3 x d₁
- h6 endmill shank



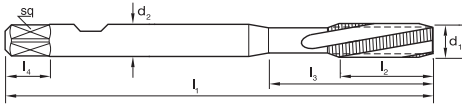
Catalogue Code												T372	T373	T374	T375
Discount Group												D0412	D0412	D0412	D0412
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												TICN	TICN	TICN	TICN
Geometry												R50°	R50°	R50° Internal Coolant	R50° Internal Coolant
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Shank Form (~DIN 1835)												A	B	A	B
Limit & Nut Tolerance												6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	4	8	6.0	4.9	8.0	3	1.6	•	T373 0200				
M 2.5	x 0.45	50	5	10	6.0	4.9	8.0	3	2.1	•	T373 0250				
M 3	x 0.50	56	5	11	6.0	4.9	8.0	3	2.5	•	T373 0300				
M 4	x 0.70	63	7	15	6.0	4.9	8.0	3	3.3	•	T373 0400				
M 5	x 0.80	70	8	21	6.0	4.9	8.0	3	4.2	•	T373 0500	•	T375 0500		
M 6	x 1.00	80	10	28	6.0	4.9	8.0	3	5.0	•	T373 0600	•	T375 0600		
M 8	x 1.25	90	13	30	8.0	6.2	9.0	3	6.8	•	T373 0800	•	T375 0800		
M 10	x 1.50	100	15	39	10.0	8.0	11.0	3	8.5	•	T373 1000	•	T375 1000		
M 12	x 1.75	110	18	45	12.0	9.0	12.0	4	10.3	•	T373 1200	•	T375 1200		
M 14	x 2.00	110	20	44	14.0	11.0	14.0	4	12.0	•	T373 1400	•	T375 1400		
M 16	x 2.00	110	20	44	16.0	12.0	15.0	4	14.0	•	T373 1600	•	T375 1600		
M 18	x 2.50	125	25	-	16.0	12.0	15.0	4	15.5	•	T373 1800	•	T375 1800		
M 20	x 2.50	140	25	-	16.0	12.0	15.0	4	17.5	•	T373 2000	•	T375 2000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Synchro, Spiral Flute, L20



- Right hand cutting / Left hand helix
- For high speed and precision tapping
- For rigid tapping in CNC machines with synchronised feed
- Suitable for materials up to 850N/mm²
- Ideal for through holes with angular exit or interrupted hole



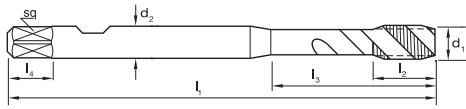
Catalogue Code												T364	T365	T366	T367
Discount Group												D0412	D0412	D0412	D0412
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												TICN	TICN	TICN	TICN
Geometry												L20°	L20°	L20° Internal Coolant	L20° Internal Coolant
Chamfer												Form D / 4 x P	Form D / 4 x P	Form D / 4 x P	Form D / 4 x P
Shank Form (~DIN 1835)												A	B	A	B
Limit & Nut Tolerance												6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	8	10	6.0	4.9	8.0	3	1.6	•	T365 0200				
M 2.5	x 0.45	50	9	13	6.0	4.9	8.0	3	2.1	•	T365 0250				
M 3	x 0.50	56	11	18	6.0	4.9	8.0	3	2.5	•	T365 0300				
M 4	x 0.70	63	13	21	6.0	4.9	8.0	3	3.3	•	T365 0400				
M 5	x 0.80	70	16	25	6.0	4.9	8.0	3	4.2	•	T365 0500	•	T367 0500		
M 6	x 1.00	80	19	30	6.0	4.9	8.0	3	5.0	•	T365 0600	•	T367 0600		
M 8	x 1.25	90	22	35	8.0	6.2	9.0	3	6.8	•	T365 0800	•	T367 0800		
M 10	x 1.50	100	24	39	10.0	8.0	11.0	3	8.5	•	T365 1000	•	T367 1000		
M 12	x 1.75	110	29	45	12.0	9.0	12.0	3	10.3	•	T365 1200	•	T367 1200		
M 14	x 2.00	110	30	44	14.0	11.0	14.0	4	12.0	•	T365 1400	•	T367 1400		
M 16	x 2.00	110	32	44	16.0	12.0	15.0	4	14.0	•	T365 1600	•	T367 1600		
M 18	x 2.50	125	34	-	16.0	12.0	15.0	4	15.5	•	T365 1800	•	T367 1800		
M 20	x 2.50	140	34	-	16.0	12.0	15.0	4	17.5	•	T365 2000	•	T367 2000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Synchro, Spiral Flute, R45 Al



- For high speed and precision tapping
- For rigid tapping in CNC machines with synchronised feed
- For aluminium & aluminium alloys
- Blind holes up to 3 x d₁
- h6 endmill shank



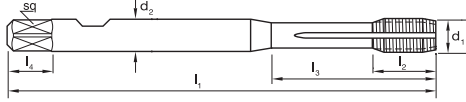
Catalogue Code												T368		T369		T370		T371	
Discount Group												D0412		D0412		D0412		D0412	
Material												PM-HSSE V3		PM-HSSE V3		PM-HSSE V3		PM-HSSE V3	
Surface Finish												CrN		CrN		CrN		CrN	
Geometry												R45°		R45°		R45° Internal Coolant		R45° Internal Coolant	
Chamfer												Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P	
Shank Form (~DIN 1835)												A		B		A		B	
Limit & Nut Tolerance												6HX		6HX		6HX		6HX	
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #						
M 2	x 0.4	45	4	8	6.0	4.9	8.0	2	1.6	•	T369 0200								
M 2.5	x 0.45	50	5	10	6.0	4.9	8.0	2	2.1	•	T369 0250								
M 3	x 0.50	56	5	11	6.0	4.9	8.0	2	2.5	•	T369 0300								
M 4	x 0.70	63	7	15	6.0	4.9	8.0	2	3.3	•	T369 0400								
M 5	x 0.80	70	8	21	6.0	4.9	8.0	2	4.2	•	T369 0500	•	T371 0500						
M 6	x 1.00	80	10	28	6.0	4.9	8.0	2	5.0	•	T369 0600	•	T371 0600						
M 8	x 1.25	90	13	30	8.0	6.2	9.0	2	6.8	•	T369 0800	•	T371 0800						
M 10	x 1.50	100	15	39	10.0	8.0	11.0	2	8.5	•	T369 1000	•	T371 1000						
M 12	x 1.75	110	18	45	12.0	9.0	12.0	2	10.3	•	T369 1200	•	T371 1200						
M 14	x 2.00	110	20	44	14.0	11.0	14.0	2	12.0	•	T369 1400	•	T371 1400						
M 16	x 2.00	110	20	44	16.0	12.0	15.0	2	14.0	•	T369 1600	•	T371 1600						
M 18	x 2.50	125	25	-	16.0	12.0	15.0	2	15.5	•	T369 1800	•	T371 1800						
M 20	x 2.50	140	25	-	16.0	12.0	15.0	2	17.5	•	T369 2000	•	T371 2000						

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Synchro, Forming



- For high speed and precision tapping
- For rigid tapping in CNC machines with synchronised feed
- For aluminium and aluminium alloys
- Process of plastic deformation to imprint thread on material
- Blind and through holes up to $3 \times d_1$
- h6 endmill shank



Catalogue Code											T380	T381	T382	T383
Discount Group											D0412	D0412	D0412	D0412
Material											PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish											TiN	TiN	TiN	TiN
Geometry											Multi-Coolant Groove	Multi-Coolant Groove	Multi-Coolant Groove IK	Multi-Coolant Groove IK
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Shank Form (~DIN 1835)											A	B	A	B
Limit & Nut Tolerance											6HX	6HX	6HX	6HX
d_1	Pitch	l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #	Item #	Item #	
M 2	x 0.4	45	4	8	6.0	4.9	8.0	1.8	•	T381 0200				
M 2.5	x 0.45	50	5	10	6.0	4.9	8.0	2.3	•	T381 0250				
M 3	x 0.50	56	5	11	6.0	4.9	8.0	2.8	•	T381 0300				
M 4	x 0.70	63	7	15	6.0	4.9	8.0	3.7	•	T381 0400				
M 5	x 0.80	70	8	21	6.0	4.9	8.0	4.6	•	T381 0500	•		T383 0500	
M 6	x 1.00	80	10	28	6.0	4.9	8.0	5.5	•	T381 0600	•	•	T383 0600	
M 8	x 1.25	90	13	30	8.0	6.2	9.0	7.4	•	T381 0800	•	•	T383 0800	
M 10	x 1.50	100	15	39	10.0	8.0	11.0	9.3	•	T381 1000	•	•	T383 1000	
M 12	x 1.75	110	18	45	12.0	9.0	12.0	11.2	•	T381 1200	•	•	T383 1200	
M 14	x 2.00	110	20	44	14.0	11.0	14.0	13.1	•	T381 1400	•	•	T383 1400	
M 16	x 2.00	110	20	44	16.0	12.0	15.0	15.1	•	T381 1600	•	•	T383 1600	
M 18	x 2.50	125	25	-	16.0	12.0	15.0	16.9	•	T381 1800	•	•	T383 1800	
M 20	x 2.50	140	25	-	16.0	12.0	15.0	18.9	•	T381 2000	•	•	T383 2000	

• Available on request as special manufacture. Subject to lead time.



SynchroFlex Tapping Attachment with unique Double Flexure

Unlike other “synchronous” tap drivers that use soft plastic components or belleville washers similar as above, to cushion the taps’ entry into the hole, SynchroFlex utilizes a patented (computer generated, precisely machined, special steel alloy) Double Flexure between the mount and the chuck.

It compensates both axially and radially for the unavoidable discrepancies between the machine’s programmed RPM, feed and traverse and the exact thread pitch and precise hole location.

The SynchroFlex is dependable and predictable. You can expect long life performance under all working conditions. What’s more, you’ll make significant savings when it comes to tap costs.

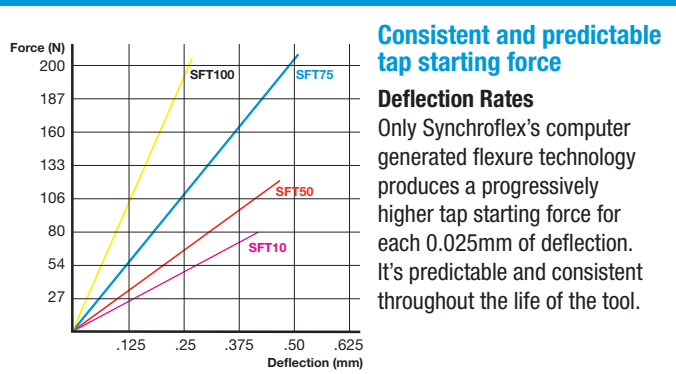


Synchroflex Proven Results

Independent tests in real world applications confirm Synchroflex is unmatched in performance

- Tap life increased by 100% or more
- Thread quality improved
- Increased production due to less tap breakage
- Less down time
- Reduced costs. The most economical rigid tapping

Synchroflex exerts lower thrust and torque forces than any other tap holder on the market. In any given material the lower the thrust and torque forces on the tap, the longer the tap life.



Test One (Thrust): 10 holes, M6 R45Al, 2 flute tap, 3x Dia deep in AL7075 at 1000 RPM



Graph illustrates the final hole tapped by each tap driver.

Holder Type	Average Thrust (N)	Average Down Thrust (N) Entering Hole	Average Reverse Thrust (N) Exiting Hole
Steel Collet Holder (Rigid)	1008	1379	930
Competitor X	681	879	445
Competitor Y	320	425	266
Synchroflex	-12	-29	-31

Test Two (Torque): 10 holes, M6 R45Al, 2 flute tap, 3x Dia deep in AL7075 at 2000 RPM

Holder Type	Average Torque (Ncm)	Average Down Cut Torque (Ncm) Entering Hole	Average Reverse Torque (Ncm) Exiting Hole
Steel Collet Holder (Rigid)	481	631	-387
Competitor X	593	639	-354
Competitor Y	542	730	-392
Synchroflex	268	371	-190

Tool Holding CNC, Rigid Tapping



- For the best rigid tapping results
- Holder designed for machines with rigid tapping
- Machine reversal required
- Increases tap life by 100% or more
- Improve thread quality
- Flexure design, acts like shock absorber



Patented Flexure Design

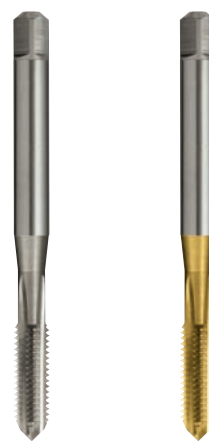
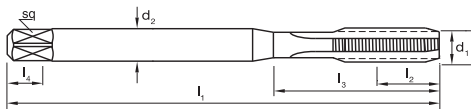


Description	Size Capacity	Mount	Collet Series	Item #
DISCOUNT GROUP Z1104				
Tapping Attachments				Z101
Synchroflex SFT10	M1-M6 #2-#10	25mm SS	ER11	Z101 SFT10
Synchroflex SFT50	M4-M12 #8-1/2	25mm SS	ER20	Z101 SFT50
Synchroflex SFT75	M4-M16 3/8 - 3/4	25mm SS	ER25	Z101 SFT75
Synchroflex SFT100	M8-M30	25mm SS	ER40	Z101 SFT100
DISCOUNT GROUP Z1108				
Collets - SFT10 (Round Drive)				Z110
2-2.5mm	M1-1.8	-	ER11	Z110 0025
2.5-3mm	M2-2.6	-	ER11	Z110 0030
3-3.5mm	M3	-	ER11	Z110 0035
3.5-4mm	M3.5	-	ER11	Z110 0040
4-4.5mm	M4	-	ER11	Z110 0045
4.5-5mm	M4 JIS	-	ER11	Z110 0050
5-5.5mm	M5 JIS	-	ER11	Z110 0055
5.5-6mm	M5/M6 or M2-M6 Synchro	-	ER11	Z110 0060
DISCOUNT GROUP Z1110				
Collets - SFT50 (Square Drive)				Z111
Ø 4.5mm	M4 DIN371	-	ER20	Z111 0045
Ø 5mm	ISO	-	ER20	Z111 0050
Ø 6mm	M5/M6 DIN371 or M2-M6 Synchro	-	ER20	Z111 0060
Ø 7mm	M10 DIN376	-	ER20	Z111 0070
Ø 8mm	M8 DIN371 or M8 Synchro	-	ER20	Z111 0080
Ø 9mm	M12 DIN376	-	ER20	Z111 0090
Ø 10mm	M10 DIN371 or M10 Synchro	-	ER20	Z111 0100
Collets - SFT75 (Square Drive)				Z112
Ø 4.5mm	M4 DIN371	-	ER25	Z112 0045
Ø 6mm	M5/M6 DIN371 or M2-M6 Synchro	-	ER25	Z112 0060
Ø 7mm	M10 DIN371	-	ER25	Z112 0070
Ø 8mm	M8 DIN371 or M8 Synchro	-	ER25	Z112 0080
Ø 9mm	M12 DIN376	-	ER25	Z112 0090
Ø 10mm	M10 DIN371 or M10 Synchro	-	ER25	Z112 0100
Ø 11mm	M14 DIN376	-	ER25	Z112 0110
Ø 12mm	M16 DIN376 or M12 Synchro	-	ER25	Z112 0120
Collets - SFT100 (Square Drive)				Z113
Ø 8mm	M8 DIN371 or M8 Synchro	-	ER40	Z113 0080
Ø 10mm	M10 DIN371 or M10 Synchro	-	ER40	Z113 0100
Ø 12mm	M16 DIN376 or M12 Synchro	-	ER40	Z113 0120
Ø 14mm	M18 DIN376 or M14 Synchro	-	ER40	Z113 0140
Ø 16mm	M20 DIN376 or M16 Synchro	-	ER40	Z113 0160
DISCOUNT GROUP Z1108				
Accessories				Z130
BT-40 Arbor W/25mm Bore	-	-	-	Z130 3943
BT-50 Arbor W/25mm Bore	-	-	-	Z130 3945
				Z135
Pull stud BT40	-	-	-	Z135 BT40
Pull stud BT50	-	-	-	Z135 BT50

Taps Metric, Straight Flute, N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through & blind holes
- Depths up to 1.5 x d₁



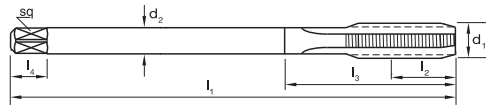
Catalogue Code											T286	T288
Discount Group											D0402	D0406
Material											HSSE V3	HSSE V3
Surface Finish											Brt	TiN
Colour Ring & Application											N	N
Geometry												
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁		Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
M 2	x	0.4	45	8	-	2.8	2.1	5	3	1.6	T286 0200	T288 0200
M 2.2	x	0.45	45	9	-	2.8	2.1	5	3	1.75	T286 0220	T288 0220
M 2.3	x	0.4	45	9	-	2.8	2.1	5	3	1.9	T286 0230	T288 0230
M 2.5	x	0.45	50	9	-	2.8	2.1	5	3	2.05	T286 0250	T288 0250
M 2.6	x	0.45	50	9	-	2.8	2.1	5	3	2.15	T286 0260	T288 0260
M 3	x	0.5	56	11	18	3.5	2.7	6	3	2.5	T286 0300	T288 0300
M 3.5	x	0.6	56	13	20	4.0	3.0	6	3	2.9	T286 0350	T288 0350
M 4	x	0.7	63	13	21	4.5	3.4	6	3	3.3	T286 0400	T288 0400
M 5	x	0.8	70	16	25	6.0	4.9	8	3	4.2	T286 0500	T288 0500
M 6	x	1	80	19	30	6.0	4.9	8	3	5.0	T286 0600	T288 0600
M 7	x	1	80	19	30	7.0	5.5	8	3	6.0	.	.
M 8	x	1.25	90	22	35	8.0	6.2	9	3	6.8	T286 0800	T288 0800
M 10	x	1.5	100	24	39	10.0	8.0	11	3	8.5	T286 1000	T288 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Straight Flute, N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through & blind holes
- Depths up to 1.5 x d₁



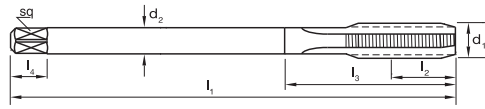
Catalogue Code												T287	T289
Discount Group												D0402	D0406
Material												HSSE V3	HSSE V3
Surface Finish												Brt	TiN
Colour Ring & Application												N	N
Geometry													
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø			Item #	Item #
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5			•	•
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9			•	•
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3			•	•
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2			•	•
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0			T287 0600	T289 0600
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8			T287 0800	T289 0800
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5			T287 1000	T289 1000
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2			T287 1200	T289 1200
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0			T287 1400	T289 1400
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0			T287 1600	T289 1600
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5			T287 1800	T289 1800
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5			T287 2000	T289 2000
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5			T287 2200	T289 2200
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0			T287 2400	T289 2400
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0			T287 2700	T289 2700
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5			T287 3000	T289 3000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Straight Flute, GG



- HSSE V3, for use in grey cast iron (GG)
- VHM, for use in Al >10% Si & cast iron (GGG)
- Through & blind holes
- Depths up to 3 x d₁



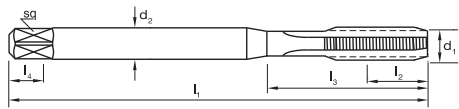
Catalogue Code												T291	T293	T671
Discount Group												D0402	D0408	D0414
Material												HSSE V3	HSSE V3	VHM
Surface Finish												Ni + Blu	TICN	TICN
Colour Ring & Application												GG	GG	GG
Geometry												Low Relief	Low Relief	Low Relief
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												6HX	6HX	6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 3	x 0.5	56	11	-	2.2	-	-	4	2.5	•	•	•		
M 3.5	x 0.6	56	13	-	2.5	2.1	5	4	2.9	•	•	•		
M 4	x 0.7	63	13	-	2.8	2.1	5	4	3.3	•	•	•		
M 5	x 0.8	70	16	-	3.5	2.7	6	4	4.2	•	•	•		
M 6	x 1	80	19	-	4.5	3.4	6	4	5.0	T291 0600	T293 0600	•		
M 8	x 1.25	90	22	-	6.0	4.9	8	4	6.8	T291 0800	T293 0800	•		
M 10	x 1.5	100	24	-	7.0	5.5	8	4	8.5	T291 1000	T293 1000	•		
M 12	x 1.75	110	29	-	9.0	7.0	10	4	10.2	T291 1200	T293 1200	•		
M 14	x 2	110	30	-	11.0	9.0	12	4	12.0	T291 1400	T293 1400	•		
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0	T291 1600	T293 1600	•		
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5	•	•	•		
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5	T291 2000	T293 2000	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Straight Flute, DC



- For production tapping in die cast materials
- PM-HSS Co for superior tool life
- Form E for maximum thread depth in blind holes
- Depths up to 1.5 x d₁



Catalogue Code											T335	T357
Discount Group											D0408	D0408
Material											PM-HSS Co	PM-HSS Co
Surface Finish											TICN	TICN
Colour Ring & Application											Die Cast	Die Cast
Geometry												Internal Coolant
Chamfer											Form E / 1.5 x P	Form E / 1.5 x P
Limit & Nut Tolerance											6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 6	x 1	80	19	30	6.0	4.9	8	4	5.0		T335 0600	T357 0600
M 8	x 1.25	90	22	35	8.0	6.2	9	4	6.8		T335 0800	T357 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	4	8.5		T335 1000	T357 1000

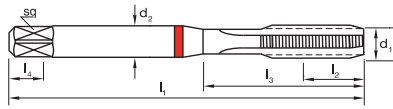


* Available on request as special manufacture. Subject to lead time.

Taps Metric, Straight Flute, XH



- Use in hardened steels 42-52 HR_c
- Through & blind holes
- Depths up to 1.5 x d₁



Catalogue Code											T294	T295
Discount Group											D0408	D0408
Material											SPM	SPM
Surface Finish											TICN	TICN
Colour Ring & Application											XH	XH
Geometry											Special Relief	Special Relief
Chamfer											Form C / 3 x P	Form D / 5 x P
Limit & Nut Tolerance											6HX	6HX
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
M 3	x	0.5	46	11	18	3.5	2.7	6	4	2.55	T294 0300	T295 0300
M 4	x	0.7	52	13	21	4.5	3.4	6	4	3.4	T294 0400	T295 0400
M 5	x	0.8	60	16	25	6.0	4.9	8	4	4.3	T294 0500	T295 0500
M 6	x	1	62	19	30	6.0	4.9	8	4	5.1	T294 0600	T295 0600
M 8	x	1.25	70	22	-	6.0	4.9	9	5	6.9	T294 0800	T295 0800
M 10	x	1.5	75	24	-	7.0	5.5	11	5	8.6	T294 1000	T295 1000
M 12	x	1.75	82	29	-	9.0	7.0	10	5	10.3	T294 1200	T295 1200
M 16	x	2	95	32	-	12.0	9.0	12	5	14.1	T294 1600	T295 1600
M 20	x	2.5	105	37	-	16.0	12.0	15	5	17.7	T294 2000	T295 2000

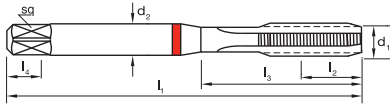
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Straight Flute, VH



- Use in hardened steels 50-60 HR_c
- Through & blind holes
- Depths up to 1.5 x d₁



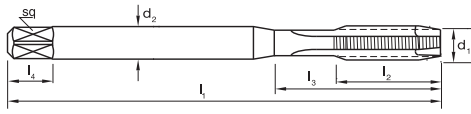
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Discount Group												D0414	D0414
Material												VHM	VHM
Surface Finish												TICN	TICN
Colour Ring & Application												VH	VH
Geometry												Special Relief	Special Relief
Chamfer												Form C / 3 x P	Form D / 5 x P
Limit & Nut Tolerance												6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #		
M 3	x 0.5	46	11	18	3.5	2.7	6	4	2.55	T296 0300	•		
M 4	x 0.7	52	13	21	4.5	3.4	6	4	3.4	T296 0400	•		
M 5	x 0.8	60	16	25	6.0	4.9	8	4	4.3	T296 0500	•		
M 6	x 1	62	19	30	6.0	4.9	8	5	5.1	T296 0600	•		
M 8	x 1.25	70	22	-	6.0	4.9	9	5	6.9	T296 0800	•		
M 10	x 1.5	75	24	-	7.0	5.5	11	5	8.6	T296 1000	•		
M 12	x 1.75	82	29	-	9.0	7.0	10	5	10.3	T296 1200	•		
M 16	x 2	95	32	-	12.0	9.0	12	6	14.1	•	•		
M 20	x 2.5	105	37	-	16.0	12.0	15	6	17.7	•	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through holes
- Depths up to 3 x d₁



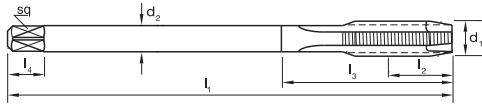
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Discount Group											D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											Br t	Bl u	Ti N
Colour Ring & Application											N	N	N
Geometry													
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
M 1	x 0.25	40	6	-	2.5	2.1	5	2	0.75		T100 0100	•	•
M 1.1	x 0.25	40	6	-	2.5	2.1	5	2	0.85		•	•	•
M 1.2	x 0.25	40	6	-	2.5	2.1	5	2	0.95		T100 0120	•	•
M 1.4	x 0.3	40	7	-	2.5	2.1	5	2	1.1		T100 0140	•	•
M 1.6	x 0.35	40	8	-	2.5	2.1	5	2	1.25		T100 0160	•	•
M 1.7	x 0.35	40	8	-	2.5	2.1	5	2	1.35		•	•	•
M 1.8	x 0.35	40	8	-	2.5	2.1	5	2	1.45		T100 0180	•	•
M 2	x 0.4	45	8	-	2.8	2.1	5	2	1.75		T100 0200	T102 0200	•
M 2.2	x 0.45	45	9	-	2.8	2.1	5	2	1.9		T100 0220	T102 0220	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2	2.1		T100 0230	T102 0230	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2	2.05		T100 0250	T102 0250	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2	2.15		T100 0260	T102 0260	•
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5		T100 0300	T102 0300	T104 0300
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9		T100 0350	T102 0350	T104 0350
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3		T100 0400	T102 0400	T104 0400
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2		T100 0500	T102 0500	T104 0500
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0		T100 0600	T102 0600	T104 0600
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0		T100 0700	T102 0700	•
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8		T100 0800	T102 0800	T104 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5		T100 1000	T102 1000	T104 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through holes
- Depths up to 3 x d₁



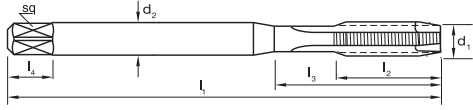
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Discount Group												D0402	D0402	D0406
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												<i>Br</i>	<i>Blu</i>	<i>TIN</i>
Colour Ring & Application												N	N	N
Geometry														
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5	T101 0300	•	•		
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9	T101 0350	•	•		
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3	T101 0400	•	•		
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2	T101 0500	•	•		
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0	T101 0600	T103 0600	T105 0600		
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8	T101 0800	T103 0800	T105 0800		
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5	T101 1000	T103 1000	T105 1000		
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2	T101 1200	T103 1200	T105 1200		
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0	T101 1400	T103 1400	T105 1400		
M 16	x 2	110	32	-	12.0	9.0	12	3	14.0	T101 1600	T103 1600	T105 1600		
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5	T101 1800	T103 1800	T105 1800		
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5	T101 2000	T103 2000	T105 2000		
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5	T101 2200	•	T105 2200		
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0	T101 2400	•	T105 2400		
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0	T101 2700	•	T105 2700		
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5	T101 3000	•	T105 3000		
M 33	x 3.5	180	50	-	25.0	20.0	23	4	29.5	T101 3300	•	•		
M 36	x 4	200	56	-	28.0	22.0	25	4	32.0	T101 3600	•	•		
M 39	x 4	200	60	-	32.0	24.0	27	4	35.0	T101 3900	•	•		
M 42	x 4.5	200	60	-	32.0	24.0	27	4	37.5	T101 4200	•	•		
M 45	x 4.5	220	65	-	36.0	29.0	32	4	40.5	T101 4500	•	•		
M 48	x 5	250	70	-	36.0	29.0	32	4	43.0	T101 4800	•	•		
M 52	x 5	250	70	-	40.0	32.0	35	4	47.0	T101 5200	•	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, N - 6G, 4H, LH



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through holes
- Depths up to 3 x d₁



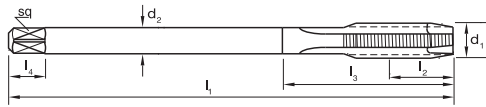
Catalogue Code												T106	T108	T648
Discount Group												D0402	D0402	D0402
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Brt	Brt	Brt
Colour Ring & Application												N	N	N
Geometry												6G	4H	Left Hand
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 3 / 6G	ISO 1 / 4H	ISO 2 / 6H LH
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 2	x 0.4	45	8	-	2.8	2.1	5	2	1.6	•	•	•		
M 2.2	x 0.45	45	9	-	2.8	2.1	5	2	1.75	•	•	•		
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2	1.9	•	•	•		
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2	2.05	•	•	•		
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2	2.15	•	•	•		
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T106 0300	T108 0300	T648 0300		
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	T106 0350	T108 0350	•		
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T106 0400	T108 0400	T648 0400		
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T106 0500	T108 0500	T648 0500		
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T106 0600	T108 0600	T648 0600		
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	•	•		
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T106 0800	T108 0800	T648 0800		
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T106 1000	T108 1000	T648 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, N - 6G, 4H, LH



- General purpose use
- Suitable for materials up to 1000N/mm²
- Through holes
- Depths up to 3 x d₁



Catalogue Code												T107			T109			T649		
Discount Group												D0402			D0402			D0402		
Material												HSSE V3			HSSE V3			HSSE V3		
Surface Finish												Brt			Brt			Brt		
Colour Ring & Application												N			N			N		
Geometry												6G			4H			Left Hand		
Chamfer												Form B / 4.5 x P			Form B / 4.5 x P			Form B / 4.5 x P		
Limit & Nut Tolerance												ISO 3 / 6G			ISO 1 / 4H			ISO 2 / 6H LH		
d ₁		Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #								
M	3	x	0.5	56	11	-	2.2	-	-	3	2.5	•	•	•						
M	3.5	x	0.6	56	13	-	2.5	2.1	5	3	2.9	•	•	•						
M	4	x	0.7	63	13	-	2.8	2.1	5	3	3.3	•	•	•						
M	5	x	0.8	70	16	-	3.5	2.7	6	3	4.2	•	•	•						
M	6	x	1	80	19	-	4.5	3.4	6	3	5.0	•	•	•						
M	8	x	1.25	90	22	-	6.0	4.9	8	3	6.8	•	•	•						
M	10	x	1.5	100	24	-	7.0	5.5	8	3	8.5	•	•	•						
M	12	x	1.75	110	29	-	9.0	7.0	10	3	10.2	T107 1200	T109 1200	T649 1200						
M	14	x	2	110	30	-	11.0	9.0	12	3	12.0	T107 1400	T109 1400	T649 1400						
M	16	x	2	110	32	-	12.0	9.0	12	3	14.0	T107 1600	T109 1600	T649 1600						
M	18	x	2.5	125	34	-	14.0	11.0	14	4	15.5	T107 1800	T109 1800	T649 1800						
M	20	x	2.5	140	34	-	16.0	12.0	15	4	17.5	T107 2000	T109 2000	T649 2000						

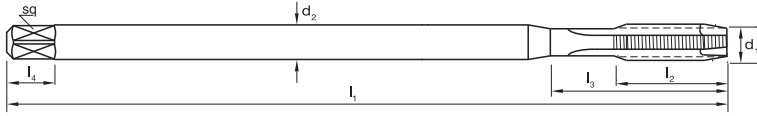
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Gun, N, Extra Length



- For long reach applications
- Suitable for materials up to 1000N/mm²
- Depths up to 3 x d₁
- d₂ and sq in accordance to DIN371



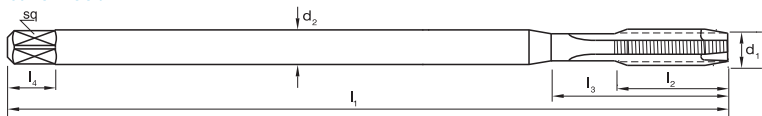
Catalogue Code											T337	
Discount Group											D0402	
Material											HSSE V3	
Surface Finish											Brt	
Colour Ring & Application											N	
Geometry											Extra Length	
Chamfer											Form B / 4.5 x P	
Limit & Nut Tolerance											ISO 2 / 6H	
d ₁		Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M	3	x	0.5	112	11		3.5	2.7	6	3	2.5	T337 0300
M	4	x	0.7	126	13		4.5	3.4	6	3	3.3	T337 0400
M	5	x	0.8	140	15		6.0	4.9	8	3	4.2	T337 0500
M	6	x	1	160	17		6.0	4.9	8	3	5.0	T337 0600
M	8	x	1.25	180	20		8.0	6.2	10	3	6.8	T337 0800

* Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, N, Extra Length



- For long reach applications
- Suitable for materials up to 1000N/mm²
- Depths up to 3 x d₁
- d₂ and sq in accordance to DIN376



Catalogue Code	T338
Discount Group	D0402
Material	HSSE V3
Surface Finish	BrT
Colour Ring & Application	N
Geometry	Extra Length
Chamfer	Form B / 4.5 x P
Limit & Nut Tolerance	ISO 2 / 6H

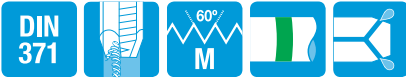
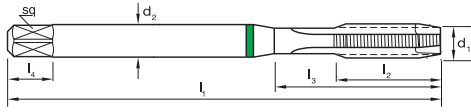
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 10	x 1.5	200	22		7.0	5.5	12	3	8.5	T338 1000
M 12	x 1.75	220	24		9.0	7.0	12	3	10.2	T338 1200
M 14	x 2	220	27		12.0	9.0	12	3	12.0	T338 1400
M 16	x 2	220	32		16.0	12.0	12	3	14.0	T338 1600
M 20	x 2.5	280	32		16.0	12.0	15	3	17.5	•
M 24	x 3.0	320	34		18.0	14.5	17	3	21.0	•



Taps Metric, Gun, UNI



- Universal use
- Suitable for materials up to 1200N/mm²
- Through holes
- Depths up to 3 x d₁



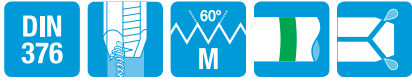
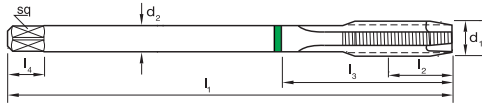
Catalogue Code												T132	T134	T140	T142
Discount Group												D0402	D0402	D0410	D0410
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												Br	Blu	TiAIN	TiAIN
Colour Ring & Application												UNI	UNI	UNI	UNI
Geometry															Internal Coolant
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6	•	•	•	•		
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75	•	•	•	•		
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9	•	•	•	•		
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05	•	•	•	•		
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15	•	•	•	•		
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T132 0300	T134 0300	T140 0300	•		
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	T132 0350	•	•	•		
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T132 0400	T134 0400	T140 0400	•		
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T132 0500	T134 0500	T140 0500	•		
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T132 0600	T134 0600	T140 0600	T142 0600		
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	•	•	•		
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T132 0800	T134 0800	T140 0800	T142 0800		
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T132 1000	T134 1000	T140 1000	T142 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, UNI



- Universal use
- Suitable for materials up to 1200N/mm²
- Through holes
- Depths up to 3 x d₁



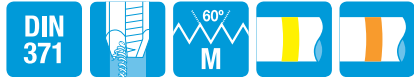
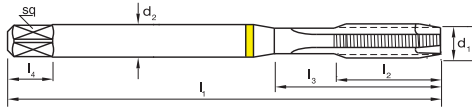
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Discount Group												D0402	D0402	D0410	D0410
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												<i>Br</i>	<i>Blu</i>	<i>TAIN</i>	<i>TAIN</i>
Colour Ring & Application												UNI	UNI	UNI	UNI
Geometry															Internal Coolant
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5	•	•	•	•		
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9	•	•	•	•		
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3	•	•	•	•		
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2	•	•	•	•		
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0	•	•	•	•		
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8	•	•	•	•		
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5	•	•	•	•		
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2	T133 1200	T135 1200	T141 1200	T143 1200		
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0	T133 1400	T135 1400	T141 1400	T143 1400		
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0	T133 1600	T135 1600	T141 1600	T143 1600		
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5	T133 1800	T135 1800	T141 1800	T143 1800		
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5	T133 2000	T135 2000	T141 2000	T143 2000		
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5	•	•	•	•		
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0	•	•	•	•		
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0	•	•	•	•		
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5	•	•	•	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, W & Cu



- Suitable for use in soft materials
- CrN for copper and non-ferrous materials
- Through holes
- Depths up to 3 x d₁



Catalogue Code												T122	T124	T126
Discount Group												D0402	D0402	D0404
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Ni	Blu	CrN
Colour Ring & Application												W	W	Cu
Geometry														
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 2	x 0.4	45	8	-	2.8	2.1	5	2	1.6	T122 0200	•	•		
M 2.2	x 0.45	45	9	-	2.8	2.1	5	2	1.75	•	•	•		
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2	1.9	•	•	•		
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2	2.05	T122 0250	•	•		
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2	2.15	•	•	•		
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T122 0300	T124 0300	T126 0300		
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	•	•	•		
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T122 0400	T124 0400	T126 0400		
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T122 0500	T124 0500	T126 0500		
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T122 0600	T124 0600	T126 0600		
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	•	•		
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T122 0800	T124 0800	T126 0800		
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T122 1000	T124 1000	T126 1000		

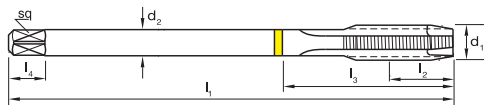
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, W & Cu



- Suitable for use in soft materials
- CrN for copper and non-ferrous materials
- Through holes
- Depths up to $3 \times d_1$



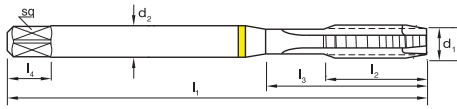
Catalogue Code											T123			T125			T127		
Discount Group											D0402			D0402			D0404		
Material											HSSE V3			HSSE V3			HSSE V3		
Surface Finish											Ni			Blu			CrN		
Colour Ring & Application											W			W			Cu		
Geometry																			
Chamfer											Form B / 4.5 x P			Form B / 4.5 x P			Form B / 4.5 x P		
Limit & Nut Tolerance											ISO 2 / 6H			ISO 2 / 6H			ISO 2 / 6H		
d_1	Pitch		l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #	Item #	Item #	Item #	Item #	Item #		
M 3	x 0.5		56	11	-	2.2	-	-	3	2.5	•	•	•	•	•	•	•		
M 3.5	x 0.6		56	13	-	2.5	2.1	5	3	2.9	•	•	•	•	•	•	•		
M 4	x 0.7		63	13	-	2.8	2.1	5	3	3.3	•	•	•	•	•	•	•		
M 5	x 0.8		70	16	-	3.5	2.7	6	3	4.2	•	•	•	•	•	•	•		
M 6	x 1		80	19	-	4.5	3.4	6	3	5.0	•	•	•	•	•	•	•		
M 8	x 1.25		90	22	-	6.0	4.9	8	3	6.8	•	•	•	•	•	•	•		
M 10	x 1.5		100	24	-	7.0	5.5	8	3	8.5	•	•	•	•	•	•	•		
M 12	x 1.75		110	29	-	9.0	7.0	10	3	10.2	T123 1200	T125 1200	T127 1200						
M 14	x 2		110	30	-	11.0	9.0	12	3	12.0	T123 1400	•	•						
M 16	x 2		110	32	-	12.0	9.0	12	4	14.0	T123 1600	T125 1600	T127 1600						
M 18	x 2.5		125	34	-	14.0	11.0	14	4	15.5	T123 1800	•	•						
M 20	x 2.5		140	34	-	16.0	12.0	15	4	17.5	T123 2000	T125 2000	T127 2000						

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, W-AZ



- Use in soft elastic materials
- Through holes
- Depths up to 3 x d₁



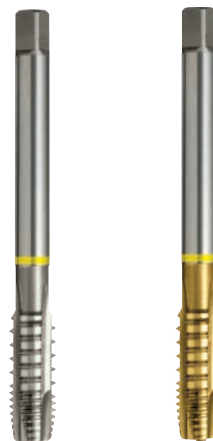
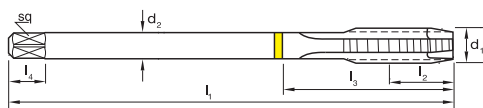
Catalogue Code											T128	T130
Discount Group											D0402	D0406
Material											HSSE V3	HSSE V3
Surface Finish											Br	TiN
Colour Ring & Application											Sticky Material	Sticky Material
Geometry											Interrupted Threads	Interrupted Threads
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6		•	•
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75		•	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9		•	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05		•	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15		•	•
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5		T128 0300	T130 0300
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9		•	•
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3		T128 0400	T130 0400
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2		T128 0500	T130 0500
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0		T128 0600	T130 0600
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0		•	•
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8		T128 0800	T130 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5		T128 1000	T130 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, W-AZ



- Use in soft elastic materials
- Through holes
- Depths up to $3 \times d_1$



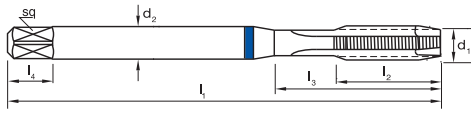
Catalogue Code												T129	T131
Discount Group												D0402	D0406
Material												HSSE V3	HSSE V3
Surface Finish												Brt	TIN
Colour Ring & Application												Sticky Material	Sticky Material
Geometry												Interrupted Threads	Interrupted Threads
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H
d_1	Pitch			l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #
M 3	x	0.5		56	11	-	2.2	-	-	3	2.5	•	•
M 3.5	x	0.6		56	13	-	2.5	2.1	5	3	2.9	•	•
M 4	x	0.7		63	13	-	2.8	2.1	5	3	3.3	•	•
M 5	x	0.8		70	16	-	3.5	2.7	6	3	4.2	•	•
M 6	x	1		80	19	-	4.5	3.4	6	3	5.0	•	•
M 8	x	1.25		90	22	-	6.0	4.9	8	3	6.8	•	•
M 10	x	1.5		100	24	-	7.0	5.5	8	3	8.5	•	•
M 12	x	1.75		110	29	-	9.0	7.0	10	3	10.2	T129 1200	T131 1200
M 14	x	2		110	30	-	11.0	9.0	12	3	12.0	T129 1400	T131 1400
M 16	x	2		110	32	-	12.0	9.0	12	3	14.0	T129 1600	T131 1600

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VA



- Use in stainless steels and high strength steels
- Suitable for materials up to 850N/mm²
- Through holes
- Depths up to 3 x d₁



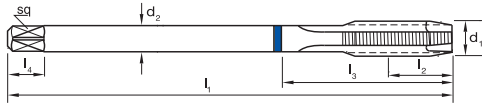
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Discount Group												D0402	D0402	D0408
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Blu	Blu	TICN
Colour Ring & Application												VA	VA	VA
Geometry												Special Relief	Special Relief	Special Relief
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6	•		•		
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75	•		•		
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9	•		•		
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05	•		•		
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15	•		•		
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T110 0300		T112 0300		
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	T110 0350		T112 0350		
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T110 0400		T112 0400		
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T110 0500		T112 0500		
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T110 0600		T112 0600		
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•		•		
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T110 0800		T112 0800		
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T110 1000		T112 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VA



- Use in stainless steels and high strength steels
- Suitable for materials up to 850N/mm²
- Through holes
- Depths up to 3 x d₁



DIN 376



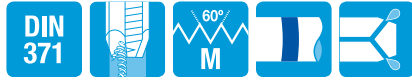
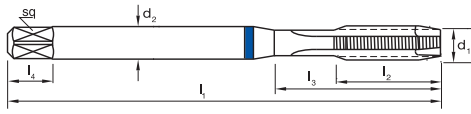
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Discount Group												D0402	D0402	D0408
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Blu	Blu	TICN
Colour Ring & Application												VA	VA	VA
Geometry												Special Relief	Special Relief	Special Relief
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5	•		•		
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9	•		•		
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3	•		•		
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2	•		•		
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0	T111 0600		T113 0600		
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8	T111 0800		T113 0800		
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5	T111 1000		T113 1000		
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2	T111 1200		T113 1200		
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0	T111 1400		T113 1400		
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0	T111 1600		T113 1600		
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5	T111 1800		T113 1800		
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5	T111 2000		T113 2000		
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5	T111 2200		T113 2200		
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0	T111 2400		T113 2400		
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0	T111 2700		T113 2700		
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5	T111 3000		T113 3000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VA PM



- PM-HSSE V3 offers superior performance
- Use in stainless steels and high strength steels
- Suitable for materials up to 850N/mm²
- Through holes
- Depths up to 3 x d₁



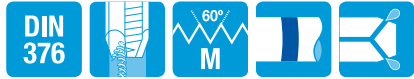
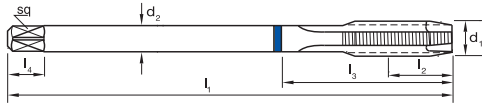
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Discount Group											D0402	D0408	D0408	D0408
Material											PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish											Blu	TICN	TICN	TICN
Colour Ring & Application											VA PM	VA PM	VA PM	VA PM
Geometry											Special Relief	Special Relief	Special Relief	Internal Coolant
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											6HX	6HX	6GX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 1.6	x 0.35	40	8	-	2.5	2.1	5	3	1.25	•	T116 0160	•	•	•
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6	•	T116 0200	•	•	•
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75	•	•	•	•	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9	•	•	•	•	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05	•	T116 0250	•	•	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15	•	•	•	•	•
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T114 0300	T116 0300	•	•	•
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	•	T116 0350	•	•	•
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T114 0400	T116 0400	•	•	•
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T114 0500	T116 0500	•	•	T118 0500
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T114 0600	T116 0600	•	•	T118 0600
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	•	•	•	•
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T114 0800	T116 0800	•	•	T118 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T114 1000	T116 1000	•	•	T118 1000

* HSSE V3 >20mm • Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VA PM



- PM-HSSE V3 offers superior performance
- Use in stainless steels and high strength steels
- Suitable for materials up to 850N/mm²
- Through holes
- Depths up to 3 x d₁



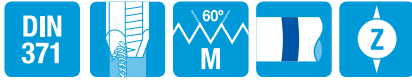
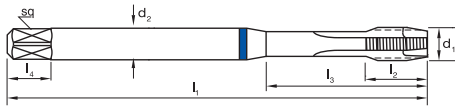
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Discount Group												D0402	D0408	D0408	D0408
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												Blu	TICN	TICN	TICN
Colour Ring & Application												VA PM	VA PM	VA PM	VA PM
Geometry												Special Relief	Special Relief	Special Relief	Internal Coolant
Chamfer												Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance												6HX	6HX	6GX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₁	z	drill Ø	Item #	Item #	Item #	Item #		
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5	•	•	•	•		
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9	•	•	•	•		
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3	•	•	•	•		
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2	•	•	•	•		
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0	•	•	•	•		
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8	•	•	•	•		
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5	•	•	•	•		
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2	T115 1200	T117 1200	•	T119 1200		
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0	T115 1400	T117 1400	•	T119 1400		
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0	T115 1600	T117 1600	•	T119 1600		
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5	T115 1800	T117 1800	•	T119 1800		
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5	T115 2000	T117 2000	•	T119 2000		
M 22*	x 2.5	140	34	-	18.0	14.5	17	4	19.5	•	•	•	•		
M 24*	x 3	160	38	-	18.0	14.5	17	4	21.0	•	•	•	•		
M 27*	x 3	160	38	-	20.0	16.0	19	4	24.0	•	•	•	•		
M 30*	x 3.5	180	45	-	22.0	18.0	21	4	26.5	•	•	•	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VADH



- Suitable for synchronous tapping in deep holes
- PM-HSSE V3 offers superior performance
- Use in stainless steels and high strength steels up to 850N/mm²
- Through holes
- Depths up to 3.5 x d₁



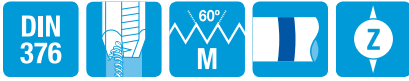
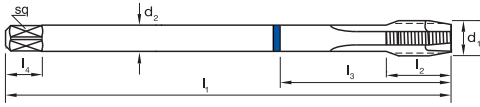
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Discount Group											D0408
Material											PM-HSSE V3
Surface Finish											TICN
Colour Ring & Application											VA-DH
Geometry											Thread Length = 10 x P
Chamfer											Form B / 4.5 x P
Limit & Nut Tolerance											6HX
d ₁		Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 2	x	0.4	45	8	-	2.8	2.1	5	2	1.6	•
M 2.2	x	0.45	45	9	-	2.8	2.1	5	2	1.75	•
M 2.3	x	0.4	45	9	-	2.8	2.1	5	2	1.9	•
M 2.5	x	0.45	50	9	-	2.8	2.1	5	2	2.05	•
M 2.6	x	0.45	50	9	-	2.8	2.1	5	2	2.15	•
M 3	x	0.5	56	11	18	3.5	2.7	6	3	2.5	T120 0300
M 3.5	x	0.6	56	13	20	4.0	3.0	6	3	2.9	•
M 4	x	0.7	63	13	21	4.5	3.4	6	3	3.3	T120 0400
M 5	x	0.8	70	16	25	6.0	4.9	8	3	4.2	T120 0500
M 6	x	1	80	19	30	6.0	4.9	8	3	5.0	T120 0600
M 7	x	1	80	19	30	7.0	5.5	8	3	6.0	•
M 8	x	1.25	90	22	35	8.0	6.2	9	3	6.8	T120 0800
M 10	x	1.5	100	24	39	10.0	8.0	11	3	8.5	T120 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, VADH



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Through holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



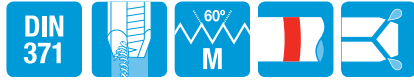
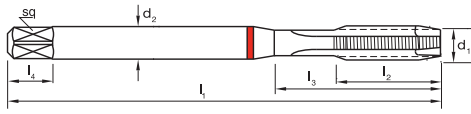
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Discount Group											D0408
Material											PM-HSSE V3
Surface Finish											TICN
Colour Ring & Application											VA-DH
Geometry											Thread Length = 10 x P
Chamfer											Form B / 4.5 x P
Limit & Nut Tolerance											6HX
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 3	x	0.5	56	11	-	2.2	-	-	3	2.5	•
M 3.5	x	0.6	56	13	-	2.5	2.1	5	3	2.9	•
M 4	x	0.7	63	13	-	2.8	2.1	5	3	3.3	•
M 5	x	0.8	70	16	-	3.5	2.7	6	3	4.2	•
M 6	x	1	80	19	-	4.5	3.4	6	3	5.0	•
M 8	x	1.25	90	22	-	6.0	4.9	8	3	6.8	•
M 10	x	1.5	100	24	-	7.0	5.5	8	3	8.5	•
M 12	x	1.75	110	29	-	9.0	7.0	10	3	10.2	T121 1200
M 14	x	2	110	30	-	11.0	9.0	12	3	12.0	T121 1400
M 16	x	2	110	32	-	12.0	9.0	12	3	14.0	T121 1600
M 18	x	2.5	125	34	-	14.0	11.0	14	4	15.5	T121 1800
M 20	x	2.5	140	34	-	16.0	12.0	15	4	17.5	T121 2000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, H



- Suitable for harder short chipping materials up to 45 HR_c
- Through holes
- Depths up to 3 x d₁



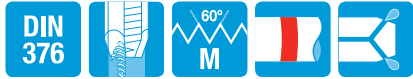
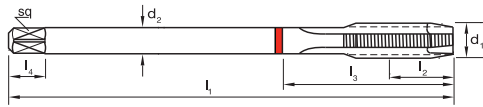
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Discount Group											D0402	D0408	D0408
Material											PM-HSS Co	PM-HSS Co	PM-HSS Co
Surface Finish											Blu	TICN	TICN
Colour Ring & Application											H	H	H
Geometry											Low Relief	Low Relief	Low Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6		•	•	•
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75		•	•	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9		•	•	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05		•	•	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15		•	•	•
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T144 0300	T146 0300	•	
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	•	•	•	
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T144 0400	T146 0400	•	
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T144 0500	T146 0500	•	
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T144 0600	T146 0600	T148 0600	
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	•	•	
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T144 0800	T146 0800	T148 0800	
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T144 1000	T146 1000	T148 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, H



- Suitable for harder short chipping materials up to 45 HR_c
- Through holes
- Depths up to 3 x d₁



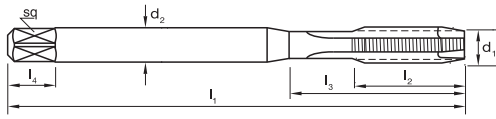
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Discount Group											D0402	D0408	D0408
Material											PM-HSS Co	PM-HSS Co	PM-HSS Co
Surface Finish											<i>Blu</i>	<i>TICN</i>	<i>TICN</i>
Colour Ring & Application											H	H	H
Geometry											Low Relief	Low Relief	Low Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5		•	•	•
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9		•	•	•
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3		•	•	•
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2		•	•	•
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0		•	•	•
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8		•	•	•
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5		•	•	•
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2		T145 1200	T147 1200	T149 1200
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0		T145 1400	T147 1400	T149 1400
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0		T145 1600	T147 1600	T149 1600
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5		T145 1800	T147 1800	T149 1800
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5		T145 2000	T147 2000	T149 2000
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5		•	•	•
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0		•	•	•
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0		•	•	•
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5		•	•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, Ti



- For Titanium based alloys
- Through holes
- Depths up to 1.5 x d₁



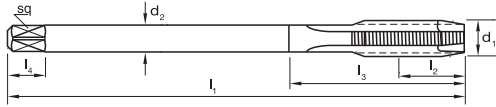
Catalogue Code											T152
Discount Group											D0408
Material											PM-HSS Co
Surface Finish											TICN
Colour Ring & Application											Ti
Geometry											
Chamfer											Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6	•	
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75	•	
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9	•	
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05	•	
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15	•	
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5	T152 0300	
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9	•	
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3	T152 0400	
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2	T152 0500	
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0	T152 0600	
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0	•	
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8	T152 0800	
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5	T152 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, Ti



- For Titanium based alloys
- Through holes
- Depths up to 1.5 x d₁



DIN 376



60°
M



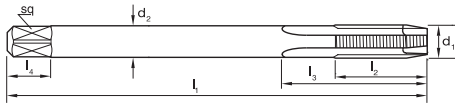
Catalogue Code											T153
Discount Group											D0408
Material											PM-HSS Co
Surface Finish											TICN
Colour Ring & Application											Ti
Geometry											
Chamfer											Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #
M 3	x 0.5	56	11	-	2.2	-	-	3	2.5		•
M 3.5	x 0.6	56	13	-	2.5	2.1	5	3	2.9		•
M 4	x 0.7	63	13	-	2.8	2.1	5	3	3.3		•
M 5	x 0.8	70	16	-	3.5	2.7	6	3	4.2		•
M 6	x 1	80	19	-	4.5	3.4	6	3	5.0		•
M 8	x 1.25	90	22	-	6.0	4.9	8	3	6.8		•
M 10	x 1.5	100	24	-	7.0	5.5	8	3	8.5		•
M 12	x 1.75	110	29	-	9.0	7.0	10	3	10.2		T153 1200
M 14	x 2	110	30	-	11.0	9.0	12	3	12.0		T153 1400
M 16	x 2	110	32	-	12.0	9.0	12	4	14.0		T153 1600
M 18	x 2.5	125	34	-	14.0	11.0	14	4	15.5		T153 1800
M 20	x 2.5	140	34	-	16.0	12.0	15	4	17.5		T153 2000
M 22	x 2.5	140	34	-	18.0	14.5	17	4	19.5		•
M 24	x 3	160	38	-	18.0	14.5	17	4	21.0		•
M 27	x 3	160	38	-	20.0	16.0	19	4	24.0		•
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5		•

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Gun, Ni



- For Nickel based alloys
- Through holes
- Depths up to 1.5 x d₁



Catalogue Code											T150
Discount Group											D0402
Material											PM-HSS Co
Surface Finish											Brt
Colour Ring & Application											Ni
Geometry											
Chamfer											Form B / 4.5 x P
Limit & Nut Tolerance											6HX
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 2	x	0.4	45	8	-	2.8	2.1	5	3	1.6	•
M 2.2	x	0.45	45	9	-	2.8	2.1	5	3	1.75	•
M 2.3	x	0.4	45	9	-	2.8	2.1	5	3	1.9	•
M 2.5	x	0.45	50	9	-	2.8	2.1	5	3	2.05	•
M 2.6	x	0.45	50	9	-	2.8	2.1	5	3	2.15	•
M 3	x	0.5	56	11	18	3.5	2.7	6	3	2.5	T150 0300
M 3.5	x	0.6	56	13	20	4.0	3.0	6	3	2.9	•
M 4	x	0.7	63	13	21	4.5	3.4	6	3	3.3	T150 0400
M 5	x	0.8	70	16	25	6.0	4.9	8	3	4.2	T150 0500
M 6	x	1	80	19	30	6.0	4.9	8	3	5.0	T150 0600
M 7	x	1	80	19	30	7.0	5.5	8	3	6.0	•
M 8	x	1.25	90	22	35	8.0	6.2	9	3	6.8	T150 0800
M 10	x	1.5	100	24	39	10.0	8.0	11	3	8.5	T150 1000

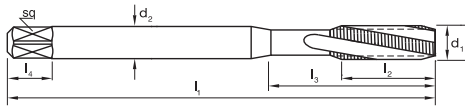
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R15 N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 1.5 x d₁



Catalogue Code											T183	T185
Discount Group											D0402	D0406
Material											HSSE V3	HSSE V3
Surface Finish											Br	TiN
Colour Ring & Application											N	N
Geometry											R15°	R15°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 2	x 0.4	45	8	-	2.8	2.1	5	3	1.6		T183 0200	•
M 2.2	x 0.45	45	9	-	2.8	2.1	5	3	1.75		•	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	3	1.9		•	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	3	2.05		T183 0250	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	3	2.15		•	•
M 3	x 0.5	56	11	18	3.5	2.7	6	3	2.5		T183 0300	•
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3	2.9		T183 0350	•
M 4	x 0.7	63	13	21	4.5	3.4	6	3	3.3		T183 0400	•
M 5	x 0.8	70	16	25	6.0	4.9	8	3	4.2		T183 0500	•
M 6	x 1	80	19	30	6.0	4.9	8	3	5.0		T183 0600	•
M 7	x 1	80	19	30	7.0	5.5	8	3	6.0		•	•
M 8	x 1.25	90	22	35	8.0	6.2	9	3	6.8		T183 0800	•
M 10	x 1.5	100	24	39	10.0	8.0	11	3	8.5		T183 1000	•

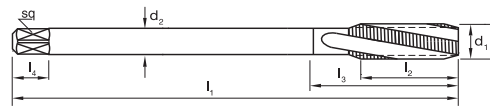
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R15 N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 1.5 x d₁



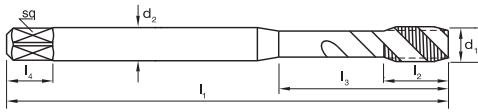
Catalogue Code												T184	T186
Discount Group												D0402	D0406
Material												HSSE V3	HSSE V3
Surface Finish												Brt	TIN
Colour Ring & Application												N	N
Geometry												R15°	R15°
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.5		56	11	-	2.2	-	-	3	2.5		•	•
M 3.5	x 0.6		56	13	-	2.5	2.1	5	3	2.9		•	•
M 4	x 0.7		63	13	-	2.8	2.1	5	3	3.3		•	•
M 5	x 0.8		70	16	-	3.5	2.7	6	3	4.2		•	•
M 6	x 1		80	19	-	4.5	3.4	6	3	5.0		•	•
M 8	x 1.25		90	22	-	6.0	4.9	8	3	6.8		•	•
M 10	x 1.5		100	24	-	7.0	5.5	8	3	8.5		•	•
M 12	x 1.75		110	29	-	9.0	7.0	10	3	10.2	T184 1200	•	•
M 14	x 2		110	30	-	11.0	9.0	12	3	12.0	T184 1400	•	•
M 16	x 2		110	32	-	12.0	9.0	12	4	14.0	T184 1600	•	•
M 18	x 2.5		125	34	-	14.0	11.0	14	4	15.5	T184 1800	•	•
M 20	x 2.5		140	34	-	16.0	12.0	15	4	17.5	T184 2000	•	•
M 22	x 2.5		140	34	-	18.0	14.5	17	4	19.5	•	•	•
M 24	x 3		160	38	-	18.0	14.5	17	4	21.0	•	•	•
M 27	x 3		160	38	-	20.0	16.0	19	4	24.0	•	•	•
M 30	x 3.5		180	45	-	22.0	18.0	21	4	26.5	•	•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R40 N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 2.5 x d₁



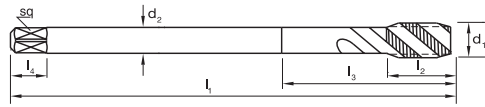
Catalogue Code											T187	T189
Discount Group											D0402	D0402
Material											HSSE V3	HSSE V3
Surface Finish											<i>Brt</i>	<i>Blu</i>
Colour Ring & Application											N	N
Geometry											R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	
M 1	x 0.25	40	3.5	-	2.5	2.1	5	2	0.75	•	•	
M 1.1	x 0.25	40	3.5	-	2.5	2.1	5	2	0.85	•	•	
M 1.2	x 0.25	40	3.5	-	2.5	2.1	5	2	0.95	•	•	
M 1.4	x 0.3	40	3.5	-	2.5	2.1	5	2	1.1	•	•	
M 1.6	x 0.35	40	3.5	-	2.5	2.1	5	2	1.25	•	•	
M 1.7	x 0.35	40	3.5	-	2.5	2.1	5	2	1.35	•	•	
M 1.8	x 0.35	40	3.5	-	2.5	2.1	5	2	1.45	•	•	
M 2	x 0.4	45	4	-	2.8	2.1	5	2	1.6	T187 0200	T189 0200	
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	2	1.75	•	•	
M 2.3	x 0.4	45	4	-	2.8	2.1	5	2	1.9	•	•	
M 2.5	x 0.45	50	4	-	2.8	2.1	5	2	2.05	T187 0250	T189 0250	
M 2.6	x 0.45	50	4	-	2.8	2.1	5	2	2.15	•	•	
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T187 0300	T189 0300	
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	•	
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T187 0400	T189 0400	
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T187 0500	T189 0500	
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T187 0600	T189 0600	
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T187 0800	T189 0800	
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T187 1000	T189 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R40 N



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 2.5 x d₁



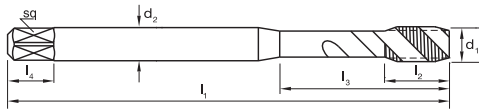
Catalogue Code												T188	T190
Discount Group												D0402	D0402
Material												HSSE V3	HSSE V3
Surface Finish												Brt	Blu
Colour Ring & Application												N	N
Geometry												R40°	R40°
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #		
M 3	x 0.5	56	6	-	2.2	-	-	3	2.5	•	•		
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•		
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•		
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	T188 0500	T190 0500		
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	T188 0600	T190 0600		
M 8	x 1.25	90	12.5	-	6.0	4.9	8	3	6.8	T188 0800	T190 0800		
M 9	x 1.25	90	12.5	-	9.0	7.0	10	3	7.8	•	•		
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	T188 1000	T190 1000		
M 12	x 1.75	110	17.5	-	9.0	7.0	10	3	10.2	T188 1200	T190 1200		
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T188 1400	T190 1400		
M 16	x 2	110	20	-	12.0	9.0	12	3	14.0	T188 1600	T190 1600		
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T188 1800	T190 1800		
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T188 2000	T190 2000		
M 22	x 2.5	140	25	-	18.0	14.5	17	4	19.5	T188 2200	•		
M 24	x 3	160	30	-	18.0	14.5	17	4	21.0	T188 2400	•		
M 27	x 3	160	30	-	20.0	16.0	19	4	24.0	T188 2700	•		
M 30	x 3.5	180	45	-	22.0	18.0	21	4	26.5	T188 3000	•		
M 33	x 3.5	180	35	-	25.0	20.0	23	4	29.5	T188 3300	•		
M 36	x 4	200	40	-	28.0	22.0	25	4	32.0	T188 3600	•		
M 39	x 4	200	40	-	32.0	24.0	27	4	35.0	•	•		
M 42	x 4.5	200	45	-	32.0	24.0	27	4	37.5	T188 4200	•		
M 45	x 4.5	220	45	-	36.0	29.0	32	4	40.5	T188 4500	•		
M 48	x 5	250	50	-	36.0	29.0	32	4	43.0	T188 4800	•		
M 52	x 5	250	50	-	40.0	32.0	35	4	47.0	T188 5200	•		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R40 N - 6G, 4H, LH



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 2.5 x d₁



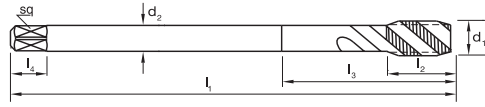
Catalogue Code												T191	T193	T195
Discount Group												D0402	D0402	D0402
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Brt	Brt	Brt
Colour Ring & Application												N	N	N
Geometry												R40° - 6G	R40° - 4H	L40°
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 3 / 6G	ISO 1 / 4H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 1.6	x 0.35	40	3.5	-	2.5	2.1	5	2	1.25	•	•	•		
M 2	x 0.4	45	4	-	2.8	2.1	5	2	1.6	T191 0200	T193 0200	•		
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	2	1.75	•	•	•		
M 2.3	x 0.4	45	4	-	2.8	2.1	5	2	1.9	•	•	•		
M 2.5	x 0.45	50	4	-	2.8	2.1	5	2	2.05	T191 0250	T193 0250	•		
M 2.6	x 0.45	50	4	-	2.8	2.1	5	2	2.15	•	•	•		
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T191 0300	T193 0300	T195 0300		
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	•	•		
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T191 0400	T193 0400	T195 0400		
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T191 0500	T193 0500	T195 0500		
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T191 0600	T193 0600	T195 0600		
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•		
M 8	x 1.25	90	13	35	8.0	6.2	9	3	6.8	T191 0800	T193 0800	T195 0800		
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T191 1000	T193 1000	T195 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R40 N - 6G, 4H, LH



- General purpose use
- Suitable for materials up to 1000N/mm²
- Blind holes
- Depths up to 2.5 x d₁



Catalogue Code	T192	T194	T196									
Discount Group	D0402	D0402	D0402									
Material	HSSE V3	HSSE V3	HSSE V3									
Surface Finish	Brt	Brt	Brt									
Colour Ring & Application	N	N	N									
Geometry	R40° - 6G	R40° - 4H	L40°									
Chamfer	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P									
Limit & Nut Tolerance	ISO 3 / 6G	ISO 1 / 4H	ISO 2 / 6H									
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #
M 3	x 0.5	56	5	-	2.2	-	-	3	2.5	•	•	•
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•	•
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•	•
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	•	•	•
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	•	•	•
M 8	x 1.25	90	13	-	6.0	4.9	8	3	6.8	•	•	•
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	•	•	•
M 12	x 1.75	110	18	-	9.0	7.0	10	3	10.2	T192 1200	T194 1200	T196 1200
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T192 1400	T194 1400	T196 1400
M 16	x 2	110	20	-	12.0	9.0	12	3	14.0	T192 1600	T194 1600	T196 1600
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T192 1800	T194 1800	T196 1800
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T192 2000	T194 2000	T196 2000

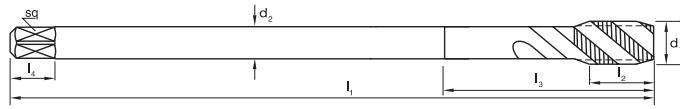
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Spiral Flute, R40 N, Extra Length



- For long reach applications
- Suitable for materials up to 1000N/mm²
- Depths up to 2.5 x d₁
- d₂ and sq in accordance to DIN376



Catalogue Code											T340
Discount Group											D0402
Material											HSSE V3
Surface Finish											BrT
Colour Ring & Application											N
Geometry											R40° - Extra Length
Chamfer											Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 10	x	1.5	200	14		7.0	5.5	12	3	8.5	T340 1000
M 12	x	1.75	220	16		9.0	7	12	3	10.2	T340 1200
M 14	x	2	220	20		12.0	9	12	3	12.0	T340 1400
M 16	x	2	220	25		16.0	12	12	3	14.0	T340 1600
M 20	x	2.5	280	25		16.0	12.0	15	3	17.5	•

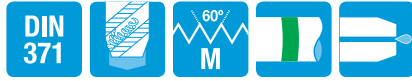
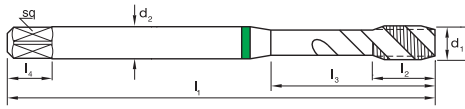
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Spiral Flute, R40 UNI



- Universal use
- Suitable for materials up to 1200N/mm²
- Blind holes
- Depths up to 2.5 x d₁



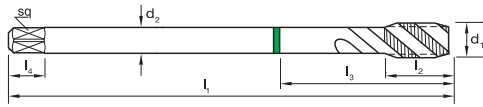
Catalogue Code												T219	T221	T227	T229
Discount Group												D0402	D0402	D0410	D0410
Material												PM-HSSE V3	PM-HSSE V3	PM-HSSE V3	PM-HSSE V3
Surface Finish												Br	Blu	TiAIN	TiAIN
Colour Ring & Application												UNI	UNI	UNI	UNI
Geometry												R40°	R40°	R40°	R40° Internal Coolant
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6	•	•	•	•		
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75	•	•	•	•		
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9	•	•	•	•		
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05	•	•	•	•		
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15	•	•	•	•		
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T219 0300	T221 0300	T227 0300	•		
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	•	•	•		
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T219 0400	T221 0400	T227 0400	•		
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T219 0500	T221 0500	T227 0500	T229 0500		
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T219 0600	T221 0600	T227 0600	T229 0600		
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•	•		
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T219 0800	T221 0800	T227 0800	T229 0800		
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T219 1000	T221 1000	T227 1000	T229 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R40 UNI



- Universal use
- Suitable for materials up to 1200N/mm²
- Blind holes
- Depths up to 2.5 x d₁



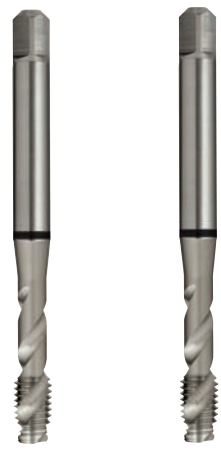
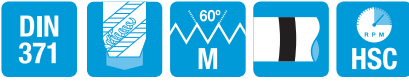
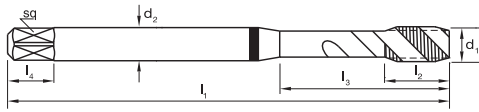
Catalogue Code	T220		T222		T228		T230						
Discount Group	D0402		D0402		D0410		D0410						
Material	PM-HSSE V3		PM-HSSE V3		PM-HSSE V3		PM-HSSE V3						
Surface Finish	Br		Blu		TiAIN		TiAIN						
Colour Ring & Application	UNI		UNI		UNI		UNI						
Geometry	R40°		R40°		R40°		R40° Internal Coolant						
Chamfer	Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P						
Limit & Nut Tolerance	ISO 2 / 6H		ISO 2 / 6H		ISO 2 / 6H		ISO 2 / 6H						
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #
M 3	x 0.5	56	6	-	2.2	-	-	3	2.5	•	•	•	•
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•	•	•
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•	•	•
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	•	•	•	•
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	•	•	•	•
M 8	x 1.25	90	12.5	-	6.0	4.9	8	3	6.8	•	•	•	•
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	•	•	•	•
M 12	x 1.75	110	17.5	-	9.0	7.0	10	3	10.2	T220 1200	T222 1200	T228 1200	T230 1200
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T220 1400	T222 1400	T228 1400	T230 1400
M 16	x 2	110	20	-	12.0	9.0	12	4	14.0	T220 1600	T222 1600	T228 1600	T230 1600
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T220 1800	T222 1800	T228 1800	T230 1800
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T220 2000	T222 2000	T228 2000	T230 2000
M 22	x 2.5	140	25	-	18.0	14.5	17	4	19.5	•	•	•	•
M 24	x 3	160	30	-	18.0	14.5	17	4	21.0	•	•	•	•
M 27	x 3	160	30	-	20.0	16.0	19	4	24.0	•	•	•	•
M 30	x 3.5	180	35	-	22.0	18.0	21	4	26.5	•	•	•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R45 Al



- Suitable for use in wrought aluminium and low silicon aluminium
- Blind holes
- Depths up to $3 \times d_1$
- CrN for longer tool life



											T231	T233
Catalogue Code											D0402	D0404
Discount Group											HSSE V3	HSSE V3
Material											Br	CrN
Surface Finish											Al	Al
Colour Ring & Application											R45° 2 Flute	R45° 2 Flute
Geometry											Form C / 2.5 x P	Form C / 2.5 x P
Chamfer											ISO 2 / 6H	ISO 2 / 6H
Limit & Nut Tolerance											Item #	Item #
d_1	Pitch	l_1	l_2	l_3	d_2	sq	l_4	z	drill Ø			
M 2	x 0.4	45	4	-	2.8	2.1	5	2	1.6	T231 0200	•	
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	2	1.75	•	•	
M 2.3	x 0.4	45	4	-	2.8	2.1	5	2	1.9	•	•	
M 2.5	x 0.45	50	4	-	2.8	2.1	5	2	2.05	T231 0250	•	
M 2.6	x 0.45	50	4	-	2.8	2.1	5	2	2.15	•	•	
M 3	x 0.5	56	6	18	3.5	2.7	6	2	2.5	T231 0300	T233 0300	
M 3.5	x 0.6	56	6	20	4.0	3.0	6	2	2.9	T231 0350	•	
M 4	x 0.7	63	7	21	4.5	3.4	6	2	3.3	T231 0400	T233 0400	
M 5	x 0.8	70	8	25	6.0	4.9	8	2	4.2	T231 0500	T233 0500	
M 6	x 1	80	10	30	6.0	4.9	8	2	5.0	T231 0600	T233 0600	
M 7	x 1	80	10	30	7.0	5.5	8	2	6.0	•	•	
M 8	x 1.25	90	12.5	35	8.0	6.2	9	2	6.8	T231 0800	T233 0800	
M 10	x 1.5	100	15	39	10.0	8.0	11	2	8.5	T231 1000	T233 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R45 Al



- Suitable for use in wrought aluminium and low silicon aluminium
- Blind holes
- Depths up to $3 \times d_1$
- CrN for longer tool life




		T232		T234							
Catalogue Code		D0402		D0404							
Discount Group											
Material		HSSE V3		HSSE V3							
Surface Finish		BrT		CrN							
Colour Ring & Application		Al		Al							
Geometry		R45° 2 Flute		R45° 2 Flute							
Chamfer		Form C / 2.5 x P		Form C / 2.5 x P							
Limit & Nut Tolerance		ISO 2 / 6H		ISO 2 / 6H							
d₁	Pitch	l₁	l₂	l₃	d₂	sq	l₄	z	drill Ø	Item #	Item #
M 3	x 0.5	56	6	-	2.2	-	-	2	2.5	•	•
M 3.5	x 0.6	56	6	-	2.5	2.1	5	2	2.9	•	•
M 4	x 0.7	63	7	-	2.8	2.1	5	2	3.3	•	•
M 5	x 0.8	70	8	-	3.5	2.7	6	2	4.2	•	•
M 6	x 1	80	10	-	4.5	3.4	6	2	5.0	•	•
M 8	x 1.25	90	12.5	-	6.0	4.9	8	2	6.8	•	•
M 10	x 1.5	100	15	-	7.0	5.5	8	2	8.5	•	•
M 12	x 1.75	110	17.5	-	9.0	7.0	10	2	10.2	T232 1200	T234 1200
M 14	x 2	110	20	-	11.0	9.0	12	2	12.0	T232 1400	T234 1400
M 16	x 2	110	20	-	12.0	9.0	12	2	14.0	T232 1600	T234 1600
M 18	x 2.5	125	25	-	14.0	11.0	14	2	15.5	T232 1800	T234 1800
M 20	x 2.5	140	25	-	16.0	12.0	15	2	17.5	T232 2000	T234 2000

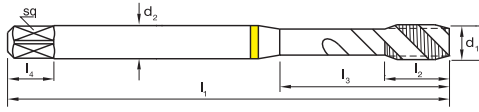
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Spiral Flute, R45 W & Cu



- Suitable for use in soft materials
- CrN for copper and non-ferrous materials
- Blind holes
- Depths up to 3 x d₁



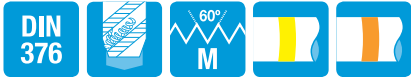
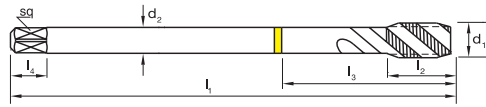
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Discount Group												D0402	D0402	D0406	D0404
Material												HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish												Ni	Blu	TiN	CrN
Colour Ring & Application												W	W	W	Cu
Geometry												R45°	R45°	R45°	R45°
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #		
M 2	x 0.4	45	4	-	2.8	2.1	5	2	1.6	T235 0200	•	•	•		
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	2	1.75	•	•	•	•		
M 2.3	x 0.4	45	4	-	2.8	2.1	5	2	1.9	•	•	•	•		
M 2.5	x 0.45	50	4	-	2.8	2.1	5	2	2.05	T235 0250	•	•	•		
M 2.6	x 0.45	50	4	-	2.8	2.1	5	2	2.15	•	•	•	•		
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T235 0300	T237 0300	T241 0300	T239 0300		
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	T235 0350	•	T241 0350	•		
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T235 0400	T237 0400	T241 0400	T239 0400		
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T235 0500	T237 0500	T241 0500	T239 0500		
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T235 0600	T237 0600	T241 0600	T239 0600		
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•	•		
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T235 0800	T237 0800	T241 0800	T239 0800		
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T235 1000	T237 1000	T241 1000	T239 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R45 W & Cu



- Suitable for use in soft materials
- CrN for copper and non-ferrous materials
- Blind holes
- Depths up to $3 \times d_1$



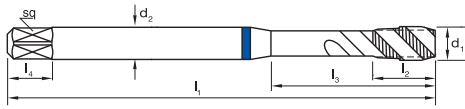
Catalogue Code												T236		T238		T242		T240	
Discount Group												D0402		D0402		D0406		D0404	
Material												HSSE V3		HSSE V3		HSSE V3		HSSE V3	
Surface Finish												Ni		Blu		TiN		CrN	
Colour Ring & Application												W		W		W		Cu	
Geometry												R45°		R45°		R45°		R45°	
Chamfer												Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P	
Limit & Nut Tolerance												ISO 2 / 6H		ISO 2 / 6H		ISO 2 / 6H		ISO 2 / 6H	
d_1	Pitch			l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #	Item #	Item #				
M 3	x	0.5		56	6	-	2.2	-	-	3	2.5	•	•	•	•				
M 3.5	x	0.6		56	6	-	2.5	2.1	5	3	2.9	•	•	•	•				
M 4	x	0.7		63	7	-	2.8	2.1	5	3	3.3	•	•	•	•				
M 5	x	0.8		70	8	-	3.5	2.7	6	3	4.2	•	•	•	•				
M 6	x	1		80	10	-	4.5	3.4	6	3	5.0	T236 0600	•	T242 0600	T240 0600				
M 8	x	1.25		90	12.5	-	6.0	4.9	8	3	6.8	T236 0800	•	T242 0800	•				
M 10	x	1.5		100	15	-	7.0	5.5	8	3	8.5	T236 1000	•	T242 1000	•				
M 12	x	1.75		110	17.5	-	9.0	7.0	10	3	10.2	T236 1200	T238 1200	T242 1200	T240 1200				
M 14	x	2		110	20	-	11.0	9.0	12	3	12.0	T236 1400	T238 1400	T242 1400	T240 1400				
M 16	x	2		110	20	-	12.0	9.0	12	4	14.0	T236 1600	T238 1600	T242 1600	T240 1600				
M 18	x	2.5		125	25	-	14.0	11.0	14	4	15.5	T236 1800	T238 1800	T242 1800	T240 1800				
M 20	x	2.5		140	25	-	16.0	12.0	15	4	17.5	T236 2000	T238 2000	T242 2000	T240 2000				

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R45 VADH



- Suitable for controlled tapping in deep holes
- Use in stainless steels and high strength steels up to 850N/mm²
- Blind holes
- Depths up to 3 x d₁



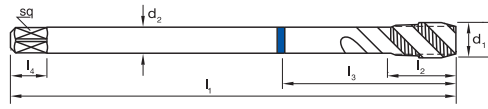
Catalogue Code											T197	T198	T201
Discount Group											D0402	D0402	D0408
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											Blu	Blu	TICN
Colour Ring & Application											VA	VA	VA
Geometry											R45° Back Chamf.	R45° Back Chamf.	R45° Back Chamf.
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6		•	•	•
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75		•	•	•
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9		•	•	•
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05		•	•	•
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15		•	•	•
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T197 0300	•	•	T201 0300
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	•	•	•
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T197 0400	•	•	T201 0400
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T197 0500	•	•	T201 0500
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T197 0600	•	•	T201 0600
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•	•
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T197 0800	•	•	T201 0800
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T197 1000	•	•	T201 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R45 VADH



- Suitable for controlled tapping in deep holes
- Use in stainless steels and high strength steels up to 850N/mm²
- Blind holes
- Depths up to 3 x d₁



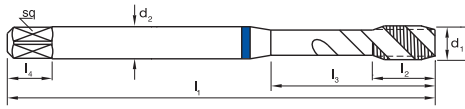
												T199	T200	T202
Catalogue Code												D0402	D0402	D0408
Discount Group														
Material												HSSE V3	HSSE V3	HSSE V3
Surface Finish												Blu	Blu	TICN
Colour Ring & Application												VA	VA	VA
Geometry												R45° Back Chamf.	R45° Back Chamf.	R45° Back Chamf.
Chamfer												Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance												ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 3	x 0.5	56	6	-	2.2	-	-	3	2.5	•	•	•		
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•	•		
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•	•		
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	•	•	•		
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	T199 0600	•	T202 0600		
M 8	x 1.25	90	12.5	-	6.0	4.9	8	3	6.8	T199 0800	•	T202 0800		
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	T199 1000	•	T202 1000		
M 12	x 1.75	110	17.5	-	9.0	7.0	10	3	10.2	T199 1200	•	T202 1200		
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T199 1400	•	T202 1400		
M 16	x 2	110	20	-	12.0	9.0	12	4	14.0	T199 1600	•	T202 1600		
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T199 1800	•	T202 1800		
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T199 2000	•	T202 2000		
M 22	x 2.5	140	25	-	18.0	14.5	17	4	19.5	T199 2200	•	T202 2200		
M 24	x 3	160	30	-	18.0	14.5	17	4	21.0	T199 2400	•	T202 2400		
M 27	x 3	160	30	-	20.0	16.0	19	4	24.0	T199 2700	•	T202 2700		
M 30	x 3.5	180	35	-	22.0	18.0	21	4	26.5	T199 3000	•	T202 3000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R50 VA PM



- Universal high performance tapping
- PM-HSSE V3 offers superior tool life
- Use in stainless steels and high strength steels up to 850N/mm²
- Deep blind holes
- Depths up to 3 x d₁



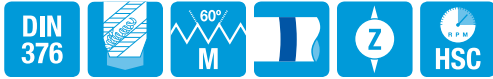
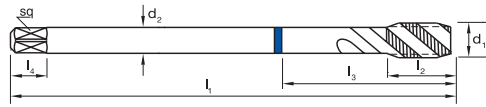
Catalogue Code												T203		T205		T678		T676	
Discount Group												D0402		D0408		D0408		D0408	
Material												PM-HSSE V3		PM-HSSE V3		PM-HSSE V3		PM-HSSE V3	
Surface Finish												Blu		TICN		TICN		TICN	
Colour Ring & Application												VA PM		VA PM		VA PM		VA PM	
Geometry												R50°		R50°		R50°		R50°	
Chamfer												Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P		Form E / 1.5 x P	
Limit & Nut Tolerance												6HX		6HX		6GX		6HX	
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #						
M 1.6	x 0.35	40	3.5	-	2.5	2.1	5	3	1.25	•	T205 0160	•	•						
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6	•	T205 0200	•	T676 0200						
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75	•	•	•	•						
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9	•	•	•	•						
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05	•	T205 0250	•	T676 0250						
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15	•	•	•	•						
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T203 0300	T205 0300	•	T676 0300						
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	T205 0350	•	T676 0350						
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T203 0400	T205 0400	•	T676 0400						
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T203 0500	T205 0500	•	T676 0500						
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T203 0600	T205 0600	•	T676 0600						
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•	•						
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T203 0800	T205 0800	•	T676 0800						
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T203 1000	T205 1000	•	T676 1000						

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R50 VA PM



- Universal high performance tapping
- PM-HSSE V3 offers superior tool life
- Use in stainless steels and high strength steels up to 850N/mm²
- Deep blind holes
- Depths up to 3 x d₁



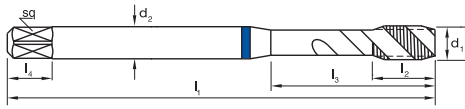
Catalogue Code												T204		T206		T679		T677	
Discount Group												D0402		D0408		D0408		D0408	
Material												PM-HSSE V3		PM-HSSE V3		PM-HSSE V3		PM-HSSE V3	
Surface Finish												Blu		TiCN		TiCN		TiCN	
Colour Ring & Application												VA PM		VA PM		VA PM		VA PM	
Geometry												R50°		R50°		R50°		R50°	
Chamfer												Form C / 2.5 x P		Form C / 2.5 x P		Form C / 2.5 x P		Form E / 1.5 x P	
Limit & Nut Tolerance												6HX		6HX		6GX		6HX	
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #						
M 3	x 0.5	56	6	-	2.2	-	-	3	2.5	•	•	•	•						
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•	•	•						
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•	•	•						
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	•	•	•	•						
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	•	•	•	•						
M 8	x 1.25	90	12.5	-	6.0	4.9	8	3	6.8	•	•	•	•						
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	•	•	•	•						
M 12	x 1.75	110	17.5	-	9.0	7.0	10	3	10.2	T204 1200	T206 1200	•	T677 1200						
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T204 1400	T206 1400	•	T677 1400						
M 16	x 2	110	20	-	12.0	9.0	12	4	14.0	T204 1600	T206 1600	•	T677 1600						
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T204 1800	T206 1800	•	T677 1800						
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T204 2000	T206 2000	•	T677 2000						
M 22*	x 2.5	140	25	-	18.0	14.5	17	4	19.5	T204 2200	T206 2200	•	T677 2200						
M 24*	x 3	160	30	-	18.0	14.5	17	4	21.0	T204 2400	T206 2400	•	T677 2400						
M 27*	x 3	160	30	-	20.0	16.0	19	4	24.0	T204 2700	T206 2700	•	•						
M 30*	x 3.5	180	35	-	22.0	18.0	21	4	26.5	T204 3000	T206 3000	•	•						

* HSSE V3 >20mm • Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R50 VA PM, IK



- Universal high performance tapping
- PM-HSSE V3 offers superior tool life
- Use in stainless steels and high strength steels up to 850N/mm²
- Deep blind holes
- Depths up to 3 x d₁



Catalogue Code											T207	
Discount Group											D0408	
Material											PM-HSSE V3	
Surface Finish											TICN	
Colour Ring & Application											VA PM	
Geometry											R50° Internal Coolant	
Chamfer											Form C / 2.5 x P	
Limit & Nut Tolerance											6HX	
	d ₁		Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M	1.6	x	0.35	40	3.5	-	2.5	2.1	5	4	1.25	•
M	2	x	0.4	45	4	-	2.8	2.1	5	4	1.6	•
M	2.2	x	0.45	45	4.5	-	2.8	2.1	5	4	1.75	•
M	2.3	x	0.4	45	4	-	2.8	2.1	5	4	1.9	•
M	2.5	x	0.45	50	4	-	2.8	2.1	5	4	2.05	•
M	2.6	x	0.45	50	4	-	2.8	2.1	5	4	2.15	•
M	3	x	0.5	56	6	18	3.5	2.7	6	4	2.5	•
M	3.5	x	0.6	56	6	20	4.0	3.0	6	4	2.9	•
M	4	x	0.7	63	7	21	4.5	3.4	6	4	3.3	•
M	5	x	0.8	70	8	25	6.0	4.9	8	4	4.2	T207 0500
M	6	x	1	80	10	30	6.0	4.9	8	4	5.0	T207 0600
M	7	x	1	80	10	30	7.0	5.5	8	4	6.0	•
M	8	x	1.25	90	12.5	35	8.0	6.2	9	4	6.8	T207 0800
M	10	x	1.5	100	15	39	10.0	8.0	11	4	8.5	T207 1000

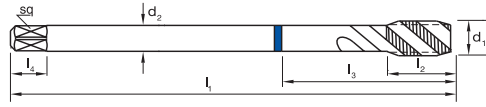
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R50 VA PM, IK



- Universal high performance tapping
- PM-HSSE V3 offers superior tool life
- Use in stainless steels and high strength steels up to 850N/mm²
- Deep blind holes
- Depths up to 3 x d₁



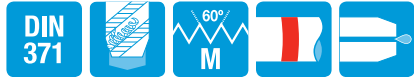
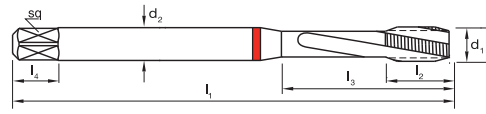
Catalogue Code											T208
Discount Group											D0408
Material											PM-HSSE V3
Surface Finish											TICN
Colour Ring & Application											VA PM
Geometry											R50° Internal Coolant
Chamfer											Form C / 2.5 x P
Limit & Nut Tolerance											6HX
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 3	x	0.5	56	6	-	2.2	-	-	4	2.5	•
M 3.5	x	0.6	56	6	-	2.5	2.1	5	4	2.9	•
M 4	x	0.7	63	7	-	2.8	2.1	5	4	3.3	•
M 5	x	0.8	70	8	-	3.5	2.7	6	4	4.2	•
M 6	x	1	80	10	-	4.5	3.4	6	4	5.0	•
M 8	x	1.25	90	12.5	-	6.0	4.9	8	4	6.8	•
M 10	x	1.5	100	15	-	7.0	5.5	8	4	8.5	•
M 12	x	1.75	110	17.5	-	9.0	7.0	10	4	10.2	T208 1200
M 14	x	2	110	20	-	11.0	9.0	12	4	12.0	T208 1400
M 16	x	2	110	20	-	12.0	9.0	12	4	14.0	T208 1600
M 18	x	2.5	125	25	-	14.0	11.0	14	4	15.5	T208 1800
M 20	x	2.5	140	25	-	16.0	12.0	15	4	17.5	T208 2000
M 22*	x	2.5	140	25	-	18.0	14.5	17	4	19.5	•
M 24*	x	3	160	30	-	18.0	14.5	17	4	21.0	•
M 27*	x	3	160	30	-	20.0	16.0	19	4	24.0	•
M 30*	x	3.5	180	35	-	22.0	18.0	21	4	26.5	•

* HSSE V3 >20mm • Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R15 H



- Suitable for harder short chipping materials up to 45 HR_c
- Blind holes
- Depths up to 1.5 x d₁



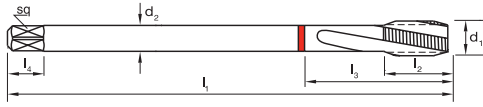
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Discount Group												D0402	D0408	D0408
Material												PM-HSS Co	PM-HSS Co	PM-HSS Co
Surface Finish												<i>Blu</i>	<i>TICN</i>	<i>TICN</i>
Colour Ring & Application												H	H	H
Geometry												R15°	R15°	R15° Internal Coolant
Chamfer												Form C / 3 x P	Form C / 3 x P	Form C / 3 x P
Limit & Nut Tolerance												ISO 2 / 6HX	ISO 2 / 6HX	ISO 2 / 6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #		
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6	•	•	•		
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75	•	•	•		
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9	•	•	•		
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05	•	•	•		
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15	•	•	•		
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T209 0300	T211 0300	•		
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	•	•		
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T209 0400	T211 0400	•		
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T209 0500	T211 0500	T213 0500		
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T209 0600	T211 0600	T213 0600		
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	•	•		
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T209 0800	T211 0800	T213 0800		
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T209 1000	T211 1000	T213 1000		

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R15 H



- Suitable for harder short chipping materials up to 45 HRc
- Blind holes
- Depths up to 1.5 x d_1



Catalogue Code	T210	T212	T214
Discount Group	D0402	D0408	D0408
Material	PM-HSS Co	PM-HSS Co	PM-HSS Co
Surface Finish	Blu	TiCN	TiCN
Colour Ring & Application	H	H	H
Geometry	R15°	R15°	R15° Internal Coolant
Chamfer	Form C / 3 x P	Form C / 3 x P	Form C / 3 x P
Limit & Nut Tolerance	ISO 2 / 6HX	ISO 2 / 6HX	ISO 2 / 6HX

d_1	Pitch	l_1	l_2	l_3	d_2	sq	l_4	z	drill \emptyset	Item #	Item #	Item #
M 3	x 0.5	56	6	-	2.2	-	-	3	2.5	•	•	•
M 3.5	x 0.6	56	6	-	2.5	2.1	5	3	2.9	•	•	•
M 4	x 0.7	63	7	-	2.8	2.1	5	3	3.3	•	•	•
M 5	x 0.8	70	8	-	3.5	2.7	6	3	4.2	•	•	•
M 6	x 1	80	10	-	4.5	3.4	6	3	5.0	•	•	•
M 8	x 1.25	90	12.5	-	6.0	4.9	8	3	6.8	•	•	•
M 10	x 1.5	100	15	-	7.0	5.5	8	3	8.5	•	•	•
M 12	x 1.75	110	17.5	-	9.0	7.0	10	3	10.2	T210 1200	T212 1200	T214 1200
M 14	x 2	110	20	-	11.0	9.0	12	3	12.0	T210 1400	T212 1400	T214 1400
M 16	x 2	110	20	-	12.0	9.0	12	4	14.0	T210 1600	T212 1600	T214 1600
M 18	x 2.5	125	25	-	14.0	11.0	14	4	15.5	T210 1800	T212 1800	T214 1800
M 20	x 2.5	140	25	-	16.0	12.0	15	4	17.5	T210 2000	T212 2000	T214 2000
M 22	x 2.5	140	25	-	18.0	14.5	17	4	19.5	•	•	•
M 24	x 3	160	30	-	18.0	14.5	17	4	21.0	•	•	•
M 27	x 3	160	30	-	20.0	16.0	19	4	24.0	•	•	•
M 30	x 3.5	180	35	-	22.0	18.0	21	4	26.5	•	•	•

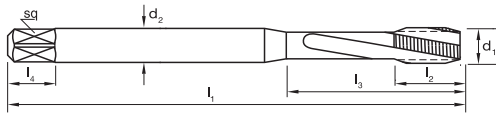
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Spiral Flute, R15 Ti



- For Titanium based alloys
- Blind holes
- Depths up to approx. 1.5 x d₁



Catalogue Code											T215
Discount Group											D0408
Material											PM-HSS Co
Surface Finish											TICN
Colour Ring & Application											Ti
Geometry											
Chamfer											Form C / 3 x P
Limit & Nut Tolerance											ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6	•	
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75	•	
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9	•	
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05	•	
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15	•	
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5	T215 0300	
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9	•	
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3	T215 0400	
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2	T215 0500	
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0	T215 0600	
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0	•	
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8	T215 0800	
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5	T215 1000	

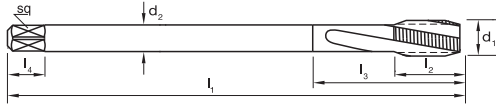
M

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R15 Ti



- For Titanium based alloys
- Blind holes
- Depths up to approx. 1.5 x d₁



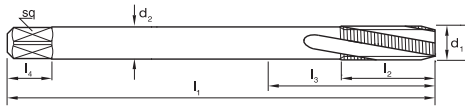
Catalogue Code											T216
Discount Group											D0408
Material											PM-HSS Co
Surface Finish											TICN
Colour Ring & Application											Ti
Geometry											
Chamfer											Form C / 3 x P
Limit & Nut Tolerance											ISO 2 / 6H
d ₁	Pitch		l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 3	x	0.5	56	6	-	2.2	-	-	3	2.5	•
M 3.5	x	0.6	56	6	-	2.5	2.1	5	3	2.9	•
M 4	x	0.7	63	7	-	2.8	2.1	5	3	3.3	•
M 5	x	0.8	70	8	-	3.5	2.7	6	3	4.2	•
M 6	x	1	80	10	-	4.5	3.4	6	3	5.0	•
M 8	x	1.25	90	12.5	-	6.0	4.9	8	3	6.8	•
M 10	x	1.5	100	15	-	7.0	5.5	8	3	8.5	•
M 12	x	1.75	110	17.5	-	9.0	7.0	10	3	10.2	T216 1200
M 14	x	2	110	20	-	11.0	9.0	12	3	12.0	T216 1400
M 16	x	2	110	20	-	12.0	9.0	12	4	14.0	T216 1600
M 18	x	2.5	125	25	-	14.0	11.0	14	4	15.5	T216 1800
M 20	x	2.5	140	25	-	16.0	12.0	15	4	17.5	T216 2000
M 22	x	2.5	140	25	-	18.0	14.5	17	4	19.5	•
M 24	x	3	160	30	-	18.0	14.5	17	4	21.0	•
M 27	x	3	160	30	-	20.0	16.0	19	4	24.0	•
M 30	x	3.5	180	35	-	22.0	18.0	21	4	26.5	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Spiral Flute, R10 Ni



- For Nickel based alloys
- Blind holes
- Depths up to approx. 1.5 x d₁



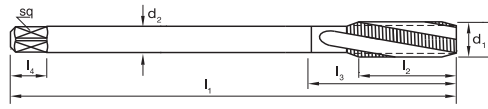
Catalogue Code											T217
Discount Group											D0402
Material											PM-HSS Co
Surface Finish											Brt
Colour Ring & Application											Ni
Geometry											R10°
Chamfer											Form C / 3 x P
Limit & Nut Tolerance											6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #
M 2	x 0.4	45	4	-	2.8	2.1	5	3	1.6		•
M 2.2	x 0.45	45	4.5	-	2.8	2.1	5	3	1.75		•
M 2.3	x 0.4	45	4	-	2.8	2.1	5	3	1.9		•
M 2.5	x 0.45	50	4	-	2.8	2.1	5	3	2.05		•
M 2.6	x 0.45	50	4	-	2.8	2.1	5	3	2.15		•
M 3	x 0.5	56	6	18	3.5	2.7	6	3	2.5		T217 0300
M 3.5	x 0.6	56	6	20	4.0	3.0	6	3	2.9		•
M 4	x 0.7	63	7	21	4.5	3.4	6	3	3.3		T217 0400
M 5	x 0.8	70	8	25	6.0	4.9	8	3	4.2		T217 0500
M 6	x 1	80	10	30	6.0	4.9	8	3	5.0		T217 0600
M 7	x 1	80	10	30	7.0	5.5	8	3	6.0		•
M 8	x 1.25	90	12.5	35	8.0	6.2	9	3	6.8		T217 0800
M 10	x 1.5	100	15	39	10.0	8.0	11	3	8.5		T217 1000

M

Taps Metric, Spiral Flute, R10 Ni



- For Nickel based alloys
- Blind holes
- Depths up to approx. 1.5 x d₁



Catalogue Code											T218	
Discount Group											D0402	
Material											PM-HSS Co	
Surface Finish											Br	
Colour Ring & Application											Ni	
Geometry											R10°	
Chamfer											Form C / 3 x P	
Limit & Nut Tolerance											6HX	
d ₁	Pitch			l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
M 3	x	0.5		56	6	-	2.2	-	-	3	2.5	•
M 3.5	x	0.6		56	6	-	2.5	2.1	5	3	2.9	•
M 4	x	0.7		63	7	-	2.8	2.1	5	3	3.3	•
M 5	x	0.8		70	8	-	3.5	2.7	6	3	4.2	•
M 6	x	1		80	10	-	4.5	3.4	6	3	5.0	•
M 8	x	1.25		90	12.5	-	6.0	4.9	8	3	6.8	•
M 10	x	1.5		100	15	-	7.0	5.5	8	3	8.5	•
M 12	x	1.75		110	17.5	-	9.0	7.0	10	3	10.2	T218 1200
M 14	x	2		110	20	-	11.0	9.0	12	3	12.0	T218 1400
M 16	x	2		110	20	-	12.0	9.0	12	4	14.0	T218 1600
M 18	x	2.5		125	25	-	14.0	11.0	14	4	15.5	T218 1800
M 20	x	2.5		140	25	-	16.0	12.0	15	4	17.5	T218 2000
M 22	x	2.5		140	25	-	18.0	14.5	17	4	19.5	•
M 24	x	3		160	30	-	18.0	14.5	17	4	21.0	•
M 27	x	3		160	30	-	20.0	16.0	19	4	24.0	•
M 30	x	3.5		180	35	-	22.0	18.0	21	4	26.5	•

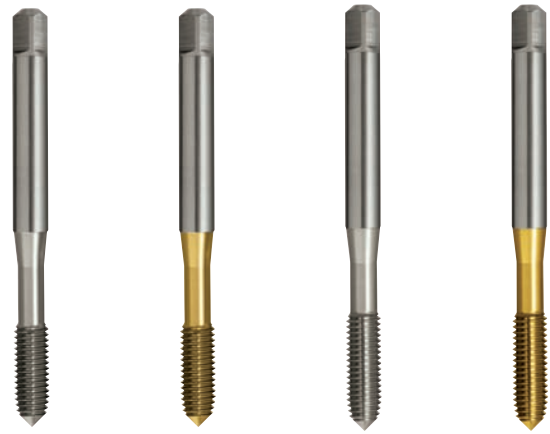
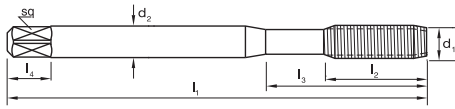
• Available on request as special manufacture. Subject to lead time.



Taps Metric, Forming



- Suitable for materials with >10% elongation
- Through or Blind holes
- Depths up to 3 x d₁



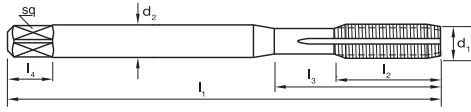
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Discount Group											D0402	D0406	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Br	TiN	Br	TiN
Colour Ring & Application											N	N	N	N
Geometry											No Groove	No Groove	No Groove	No Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form D / 4 x P	Form D / 4 x P
Limit & Nut Tolerance											6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #	
M 1	x 0.25	40	6	-	2.5	2.1	3	0.9		T309 0100	•	T311 0100	•	
M 1.2	x 0.25	40	6	-	2.5	2.1	3	1.1		T309 0120	•	T311 0120	•	
M 1.4	x 0.3	40	6	-	2.5	2.1	3	1.28		T309 0140	•	T311 0140	•	
M 1.6	x 0.35	40	7	-	2.5	2.1	3	1.45		T309 0160	•	T311 0160	•	
M 1.7	x 0.35	40	8	-	2.5	2.1	3	1.55		T309 0170	•	T311 0170	•	
M 1.8	x 0.35	40	8	-	2.5	2.1	3	1.65		T309 0180	•	T311 0180	•	
M 2	x 0.4	45	8	-	2.8	2.1	5	1.8		T309 0200	•	T311 0200	•	
M 2.2	x 0.45	45	8	-	2.8	2.1	5	2.0		T309 0220	•	T311 0220	•	
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2.1		T309 0230	•	T311 0230	•	
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2.3		T309 0250	•	T311 0250	•	
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2.4		T309 0260	•	T311 0260	•	
M 3	x 0.5	56	11	18	3.5	2.7	6	2.8		T309 0300	T313 0300	T311 0300	T315 0300	
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3.2		T309 0350	T313 0350	T311 0350	T315 0350	
M 4	x 0.7	63	13	21	4.5	3.4	6	3.7		T309 0400	T313 0400	T311 0400	T315 0400	
M 5	x 0.8	70	16	25	6.0	4.9	8	4.6		T309 0500	T313 0500	T311 0500	T315 0500	
M 6	x 1	80	19	30	6.0	4.9	8	5.5		T309 0600	T313 0600	T311 0600	T315 0600	
M 7	x 1	80	19	30	7.0	5.5	8	6.5		•	•	•	•	
M 8	x 1.25	90	22	35	8.0	6.2	9	7.4		T309 0800	T313 0800	T311 0800	T315 0800	
M 10	x 1.5	100	24	39	10.0	8.0	11	9.3		T309 1000	T313 1000	T311 1000	T315 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Forming, Multi Coolant Groove



- Suitable for materials with >10% elongation
- Through or Blind holes
- Depths up to 3 x d₁



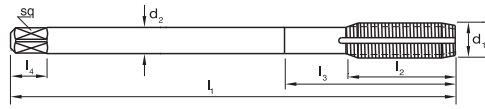
Catalogue Code											T317	T323	T319	T321
Discount Group											D0402	D0408	D0408	D0408
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											BrT	TICN	TICN	TICN
Colour Ring & Application											N	N	N	N
Geometry											Multi Coolant Groove	Multi Coolant Groove	Multi Coolant Groove	Multi Coolant Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form D / 4 x P
Limit & Nut Tolerance											6GX	6GX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 1	x 0.25	40	6	-	2.5	2.1	3	0.9		•			T319 0100	•
M 1.2	x 0.25	40	6	-	2.5	2.1	3	1.1		•			•	•
M 1.4	x 0.3	40	6	-	2.5	2.1	3	1.28		•			T319 0140	•
M 1.6	x 0.35	40	7	-	2.5	2.1	3	1.45		•			T319 0160	•
M 1.7	x 0.35	40	8	-	2.5	2.1	3	1.55		•			•	•
M 1.8	x 0.35	40	8	-	2.5	2.1	3	1.65		•			•	•
M 2	x 0.4	45	8	-	2.8	2.1	5	1.8		•			T319 0200	•
M 2.2	x 0.45	45	8	-	2.8	2.1	5	2.0		•			•	•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2.1		•			•	•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2.3		•			T319 0250	•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2.4		•			•	•
M 3	x 0.5	56	11	18	3.5	2.7	6	2.8		•			T319 0300	T321 0300
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3.2		•			T319 0350	T321 0350
M 4	x 0.7	63	13	21	4.5	3.4	6	3.7		•			T319 0400	T321 0400
M 5	x 0.8	70	16	25	6.0	4.9	8	4.6		•			T319 0500	T321 0500
M 6	x 1	80	19	30	6.0	4.9	8	5.5		•			T319 0600	T321 0600
M 7	x 1	80	19	30	7.0	5.5	8	6.5		•			•	•
M 8	x 1.25	90	22	35	8.0	6.2	9	7.4		•			T319 0800	T321 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	9.3		•			T319 1000	T321 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Forming, Multi Coolant Groove



- Suitable for materials with >10% elongation
- Through or Blind holes
- Depths up to 3 x d₁



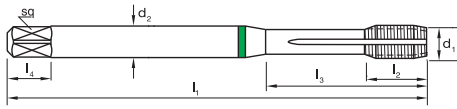
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Discount Group											D0402	D0408	D0408	D0408
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	TICN	TICN	TICN
Colour Ring & Application											N	N	N	N
Geometry											Multi Coolant Groove	Multi Coolant Groove	Multi Coolant Groove	Multi Coolant Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form D / 4 x P
Limit & Nut Tolerance											6GX	6GX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 6 [†]	x 1	80	19	-	4.5	3.4	6	5.5		•	•	T320 0600	•	
M 7 [†]	x 1	80	19	-	5.5	4.3	7	6.5		•	•	•	•	
M 8 [†]	x 1.25	90	22	-	6.0	4.9	8	7.4		•	•	T320 0800	•	
M 10 [†]	x 1.5	100	24	-	7.0	5.5	8	9.3		•	•	T320 1000	•	
M 12	x 1.75	110	29	-	9.0	7.0	10	11.2		•	•	T320 1200	T322 1200	
M 14	x 2	110	30	-	11.0	9.0	12	13.1		•	•	T320 1400	T322 1400	
M 16	x 2	110	32	-	12.0	9.0	12	15.1		•	•	T320 1600	T322 1600	
M 18	x 2.5	125	34	-	14.0	11.0	14	16.9		•	•	•	•	
M 20	x 2.5	140	34	-	16.0	12.0	15	18.9		•	•	•	•	

• Available on request as special manufacture. Subject to lead time.
 † Made to -DIN 376 standard.

Taps Metric, Forming, UNI, Cu, VA



- SPM for superior performance
- Application specific geometry
- Suitable for materials with >10% elongation
- Through or Blind holes
- Depths up to 3 x d₁



DIN 2174



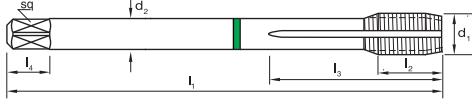
Catalogue Code											T325	T327	T333	T329
Discount Group											D0410	D0410	D0410	D0404
Material											SPM	SPM	SPM	HSSE V3
Surface Finish											TiAIN	TiAIN	TiAIN	CrN
Colour Ring & Application											UNI	UNI	VA	Cu
Geometry											Multi-Coolant Groove	Internal Coolant	Multi-Coolant Groove	Multi-Coolant Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 1	x 0.25	40	6	-	2.5	2.1	3	0.9		•				•
M 1.2	x 0.25	40	6	-	2.5	2.1	3	1.1		•				•
M 1.4	x 0.3	40	6	-	2.5	2.1	3	1.28		•				•
M 1.6	x 0.35	40	7	-	2.5	2.1	3	1.45		•				•
M 1.7	x 0.35	40	8	-	2.5	2.1	3	1.55		•				•
M 1.8	x 0.35	40	8	-	2.5	2.1	3	1.65		•				•
M 2	x 0.4	45	8	-	2.8	2.1	5	1.8	T325 0200	•				•
M 2.2	x 0.45	45	8	-	2.8	2.1	5	2.0	•					•
M 2.3	x 0.4	45	9	-	2.8	2.1	5	2.1	•					•
M 2.5	x 0.45	50	9	-	2.8	2.1	5	2.3	T325 0250	•				•
M 2.6	x 0.45	50	9	-	2.8	2.1	5	2.4	•					•
M 3	x 0.5	56	11	18	3.5	2.7	6	2.8	T325 0300	•				T329 0300
M 3.5	x 0.6	56	13	20	4.0	3.0	6	3.2	•					T329 0350
M 4	x 0.7	63	13	21	4.5	3.4	6	3.7	T325 0400	•				T329 0400
M 5	x 0.8	70	16	25	6.0	4.9	8	4.6	T325 0500	T327 0500	•			T329 0500
M 6	x 1	80	19	30	6.0	4.9	8	5.5	T325 0600	T327 0600	•			T329 0600
M 7	x 1	80	19	30	7.0	5.5	8	6.5	•	•	•			•
M 8	x 1.25	90	22	35	8.0	6.2	9	7.4	T325 0800	T327 0800	•			T329 0800
M 10	x 1.5	100	24	39	10.0	8.0	11	9.3	T325 1000	T327 1000	•			T329 1000

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Forming, UNI, Cu, VA



- UNI, for cold forming of threads in materials with good flow characteristics
- Cu, for cold forming of threads in copper
- VA, for cold forming of threads in stainless steel
- Through or Blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



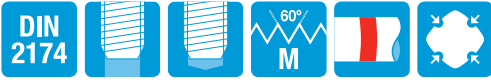
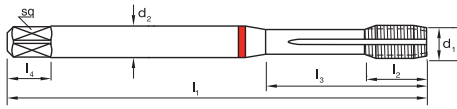
Catalogue Code											T326	T328	T334	T330
Discount Group											D0410	D0410	D0410	D0404
Material											SPM	SPM	SPM	HSSE V3
Surface Finish											TiAIN	TiAIN	TiAIN	CrN
Colour Ring & Application											UNI	UNI	VA	Cu
Geometry											Multi-Coolant Groove	Internal Coolant	Multi-Coolant Groove	Multi-Coolant Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											6HX	6HX	6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 6 [†]	x 1	80	19	-	4.5	3.4	6	5.5		•	•	•	•	
M 7 [†]	x 1	80	19	-	5.5	4.3	7	6.5		•	•	•	•	
M 8 [†]	x 1.25	90	22	-	6.0	4.9	8	7.4		•	•	•	•	
M 10 [†]	x 1.5	100	24	-	7.0	5.5	8	9.3		•	•	•	•	
M 12	x 1.75	110	29	-	9.0	7.0	10	11.2		T326 1200	T328 1200	•	T330 1200	
M 14	x 2	110	30	-	11.0	9.0	12	13.1		T326 1400	•	•	•	
M 16	x 2	110	32	-	12.0	9.0	12	15.1		T326 1600	•	•	•	
M 18	x 2.5	125	34	-	14.0	11.0	14	16.9		•	•	•	•	
M 20	x 2.5	140	34	-	16.0	12.0	15	18.9		•	•	•	•	

• Available on request as special manufacture. Subject to lead time.
 † Made to -DIN 376 standard.

Taps Metric, Forming, H & VH



- SPM for superior performance
- VHM for high volume production
- Suitable for materials with restricted ductility
- Application specific geometry for harder materials (GGV)
- Through or Blind holes
- Depths up to 2 x d₁



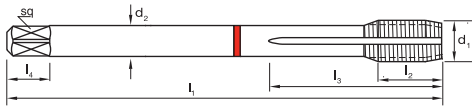
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Discount Group										D0408	D0414	
Material										SPM	VHM	
Surface Finish										TICN	TIAIN	
Colour Ring & Application										H	H	
Geometry										Multi-Coolant Groove	Multi-Coolant Groove	
Chamfer										Form C / 2.5 x P	Form C / 2.5 x P	
Limit & Nut Tolerance										6HX	6HX	
	d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
M 1	x 0.25	40	-	-	2.5	2.1	3	0.9			•	
M 1.2	x 0.25	40	-	-	2.5	2.1	3	1.1			•	
M 1.4	x 0.3	40	-	-	2.5	2.1	3	1.28			•	
M 1.6	x 0.35	40	-	-	2.5	2.1	3	1.45			•	
M 1.7	x 0.35	40	-	-	2.5	2.1	3	1.55			•	
M 1.8	x 0.35	40	-	-	2.5	2.1	3	1.65			•	
M 2	x 0.4	45	6	-	2.8	2.1	5	1.8			T331 0200	
M 2.2	x 0.45	45	7	-	2.8	2.1	5	2.0			•	
M 2.3	x 0.4	45	7	-	2.8	2.1	5	2.1			•	
M 2.5	x 0.45	50	8	-	2.8	2.1	5	2.3			T331 0250	
M 2.6	x 0.45	50	8	-	2.8	2.1	5	2.4			•	
M 3	x 0.5	56	9	18	3.5	2.7	6	2.8			T331 0300	
M 3.5	x 0.6	56	11	20	4.0	3.0	6	3.2			T331 0350	
M 4	x 0.7	63	12	21	4.5	3.4	6	3.7			T331 0400	
M 5	x 0.8	70	13	25	6.0	4.9	8	4.6			T331 0500	
M 6	x 1	80	15	30	6.0	4.9	8	5.5			T331 0600	
M 7	x 1	80	15	30	7.0	5.5	8	6.5			•	
M 8	x 1.25	90	18	35	8.0	6.2	9	7.4			T331 0800	
M 10	x 1.5	100	20	39	10.0	8.0	11	9.3			T331 1000	

• Available on request as special manufacture. Subject to lead time.

Taps Metric, Forming, H & VH



- SPM for superior performance
- VHM for high volume production
- Suitable for materials with restricted ductility
- Application specific geometry for harder materials (GGV)
- Through or Blind holes
- Depths up to $2 \times d_1$



Catalogue Code	T332			T683							
Discount Group	D0408			D0414							
Material	SPM			VHM							
Surface Finish	TICN			TAIN							
Colour Ring & Application	H			H							
Geometry	Multi-Coolant Groove			Multi-Coolant Groove							
Chamfer	Form C / 2.5 x P			Form C / 2.5 x P							
Limit & Nut Tolerance	6HX			6HX							
d_1	Pitch	l_1	l_2	l_3	d_2	sq	l_4	z	drill Ø	Item #	Item #
M 6	x 1	80	15	-	5.0	3.4	6		5.5	•	
M 7	x 1	80	15	-	7.0	5.5			6.5	•	
M 8	x 1.25	90	18	-	6.0	4.9	8		7.4	•	
M 10	x 1.5	100	20	-	7.0	5.5	8		9.3	•	
M 12	x 1.75	110	23	-	9.0	7.0	10		11.2	T332 1200	
M 14	x 2	110	25	-	11.0	9.0	12		13.1	T332 1400	
M 16	x 2	110	25	-	12.0	9.0	12		15.1	T332 1600	
M 18	x 2.5	125	30	-	14.0	11.0	14		16.9	•	
M 20	x 2.5	140	30	-	16.0	12.0	15		18.9	•	

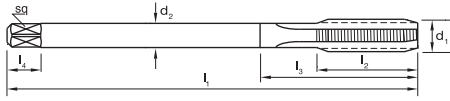
• Available on request as special manufacture. Subject to lead time.



Taps Metric Fine, Straight Flute, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through & blind holes
- Suitable for machine operations
- Depths up to approx. 1 x d₁



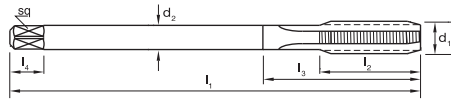
Catalogue Code											T298	T299
Discount Group											D0402	D0406
Material											HSSE V3	HSSE V3
Surface Finish											Brt	TIN
Colour Ring & Application											N	N
Geometry												
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		T298 0302	•
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		T298 0403	•
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		T298 0503	•
M 6	x 0.5	80	14	-	4.5	3.4	6	3	5.5		•	T299 0603
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.3		T298 0604	•
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		T298 0803	•
M 8	x 0.75	80	18	-	6.0	4.9	8	3	7.3		T298 0804	•
M 8	x 1	90	22	-	6.0	4.9	8	3	7.0		T298 0805	T299 0805
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.3		T298 1004	•
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		T298 1005	T299 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.8		T298 1006	T299 1006
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		T298 1205	T299 1205
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		T298 1206	T299 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		T298 1207	T299 1207
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		T298 1405	T299 1405
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		T298 1406	T299 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		T298 1407	T299 1407
M 16	x 1	100	22	-	12.0	9.0	12	3	15.0		T298 1605	T299 1605
M 16	x 1.5	100	22	-	12.0	9.0	12	3	14.5		T298 1607	T299 1607
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		T298 1805	•
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T298 1807	T299 1807
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		T298 1808	•
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		T298 2005	T299 2005
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T298 2007	•
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		T298 2008	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Straight Flute, GG



- Use in grey cast iron (GG), brittle plastics, hard bronzes to a hardness of 850 N/mm²
- Through & blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



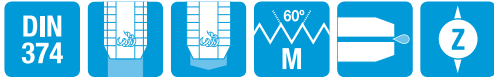
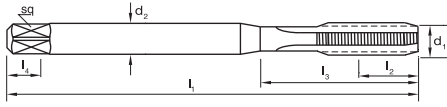
Catalogue Code											T300	T301
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Ni + Blu	TiCN
Colour Ring & Application											GG	GG
Geometry											Low Relief	Low Relief
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6HX	ISO 2 / 6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	4	2.65		•	•
M 4	x 0.5	63	10	-	2.8	2.1	5	4	3.5		T300 0403	T301 0403
M 5	x 0.5	70	12	-	3.5	2.7	6	4	4.5		T300 0503	T301 0503
M 6	x 0.75	80	14	-	4.5	3.4	6	4	5.3		T300 0604	T301 0604
M 8	x 0.5	80	18	-	6.0	4.9	8	4	7.5		•	•
M 8	x 0.75	80	18	-	6.0	4.9	8	4	7.3		•	•
M 8	x 1	90	22	-	6.0	4.9	8	4	7.0		T300 0805	T301 0805
M 10	x 0.75	90	20	-	7.0	5.5	8	4	9.3		•	•
M 10	x 1	90	20	-	7.0	5.5	8	4	9.0		T300 1005	T301 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	4	8.8		T300 1006	T301 1006
M 12	x 1	100	22	-	9.0	7.0	10	4	11.0		•	•
M 12	x 1.25	100	22	-	9.0	7.0	10	4	10.8		T300 1206	T301 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	4	10.5		T300 1207	T301 1207
M 14	x 1	100	22	-	11.0	9.0	12	4	13.0		•	•
M 14	x 1.25	100	22	-	11.0	9.0	12	4	12.8		T300 1406	T301 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	4	12.5		T300 1407	T301 1407
M 16	x 1	100	22	-	12.0	9.0	12	4	15.0		•	•
M 16	x 1.5	100	22	-	12.0	9.0	12	4	14.5		T300 1607	T301 1607
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		•	•
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T300 1807	T301 1807
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		•	•
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		•	•
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T300 2007	T301 2007
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Straight Flute, DC



- Premium design for cast aluminium and cast iron (Short Chipping)
- Through & blind holes
- Depths up to approx. $1.5 \times d_1$
- Axial coolant duct available



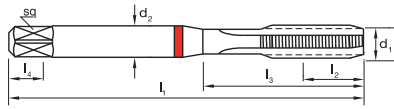
Catalogue Code	T668		T669									
Discount Group	D0408		D0408									
Material	PM-HSS Co		PM-HSS Co									
Surface Finish	TICN		TICN									
Colour Ring & Application	Die Cast		Die Cast									
Geometry			Internal Coolant									
Chamfer	Form E / 1.5 x P		Form E / 1.5 x P									
Limit & Nut Tolerance	6HX		6HX									
	d_1	Pitch	l_1	l_2	l_3	d_2	sq	l_4	z	drill Ø	Item #	Item #
M 10	x	1.25	100	24	-	7.0	5.5	8	4	8.8	T668 1006	T669 1006
M 12	x	1.5	100	22	-	9.0	7.0	10	4	10.5	T668 1207	T669 1207
M 14	x	1.5	100	22	-	11.0	9.0	12	4	12.5	T668 1407	T669 1407
M 16	x	1.5	100	22	-	12.0	9.0	12	4	14.5	T668 1607	T669 1607

M-F

Taps Metric Fine, Straight Flute, XH



- Use in hardened steels 42-52 HR_c
- Through & blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



											T343	T344
Catalogue Code											D0408	D0408
Discount Group												
Material											SPM	SPM
Surface Finish											TICN	TICN
Colour Ring & Application											XH	XH
Geometry											Special Relief	Special Relief
Chamfer											Form C / 3 x P	Form D / 5 x P
Limit & Nut Tolerance											6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 8	x 1	70	22	-	6.0	4.9	8	5	7.1		•	•
M 10	x 1	75	24	-	7.0	5.5	8	5	9.1		•	•
M 10	x 1.25	75	24	-	7.0	5.5	8	5	8.9		•	•
M 12	x 1	82	29	-	9.0	7.0	10	5	11.1		•	•
M 12	x 1.25	82	29	-	9.0	7.0	10	5	10.9		•	•
M 12	x 1.5	82	29	-	9.0	7.0	10	5	10.6		•	•

• Available on request as special manufacture. Subject to lead time.

tapping hardened steel? we have the solution...

VH CARBIDE

T296 (Metric Coarse)

T345 (Metric Fine)

The VH series carbide tap range from Sutton Tools, combines a unique geometry, a specially developed carbide grade and an optimized TiCN coating, enabling to produce threads in hardened materials from 45 to 62 HRC.

However, when approaching this application there are some very important steps to follow to ensure the operation a success:

- For use in a machine only equipped with rigid tapping and not by hand
- Recommended speeds must be adhered to
- Torque load on the tap is quite high, so tap adapters without a clutch is preferable, or if used with a clutch, then set to high
- After each tapped thread, the chip /swarf must be removed / cleared from the tap
- Neat cutting oil must be used
- Maximum thread depth is 1.5 x D

The above steps are necessary for producing threads, however, the other ideal application for this tap – is to clean out or re-size threads on post heat treatment of components.

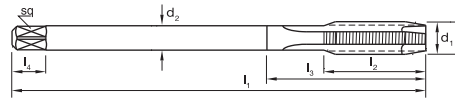
This range of taps is developed & manufactured by Sutton Tools, in Australia. We stock sizes from M3 to M20, however, we can produce any thread form to suit your requirement as a special order.

www.suttontools.com.au

Taps Metric Fine, Gun, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



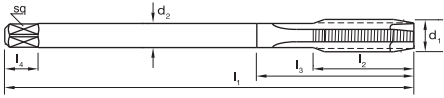
Catalogue Code											T154	T155	T156	T157
Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	Brt	Blu	TiN
Colour Ring & Application											N	N	N	N
Geometry												6G		
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		T154 0302	•	•	•
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		T154 0403	•	T156 0403	•
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		T154 0503	•	T156 0503	•
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.25		T154 0604	T155 0604	T156 0604	T157 0604
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		T154 0803	•	•	T157 0803
M 8	x 0.75	80	18	-	6.0	4.9	8	3	7.25		T154 0804	•	T156 0804	T157 0804
M 8	x 1	90	22	-	6.0	4.9	8	3	7.25		T154 0805	T155 0805	T156 0805	T157 0805
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.25		T154 1004	•	T156 1004	•
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		T154 1005	T155 1005	T156 1005	T157 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.75		T154 1006	T155 1006	T156 1006	T157 1006
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		T154 1205	•	T156 1205	T157 1205
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		T154 1206	•	T156 1206	T157 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		T154 1207	T155 1207	T156 1207	T157 1207
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		T154 1405	•	•	•
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		T154 1406	•	T156 1406	T157 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		T154 1407	T155 1407	T156 1407	T157 1407
M 16	x 1	100	22	-	12.0	9.0	12	3	14.5		T154 1605	•	•	•
M 16	x 1.5	100	22	-	12.0	9.0	12	3	16.5		T154 1607	•	T156 1607	T157 1607
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		T154 1805	•	•	•
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T154 1807	•	T156 1807	T157 1807
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		T154 1808	•	•	•
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		T154 2005	•	•	•
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T154 2007	•	T156 2007	T157 2007
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		T154 2008	•	•	•
M 22	x 1	125	25	-	18.0	14.5	17	4	18.5		T154 2205	•	•	•
M 22	x 1.5	125	25	-	18.0	14.5	17	4	20.5		T154 2207	•	•	•
M 22	x 2	140	28	-	18.0	14.5	17	4	20.0		T154 2208	•	•	•
M 24	x 1	140	28	-	18.0	14.5	17	4	23.0		T154 2405	•	•	•
M 24	x 1.5	140	28	-	18.0	14.5	17	4	22.5		T154 2407	•	•	•
M 24	x 2	140	28	-	18.0	14.5	17	4	22.0		T154 2408	•	•	•
M 25	x 1	140	28	-	18.0	14.5	17	4	24.0		•	•	•	•
M 25	x 1.5	140	28	-	18.0	14.5	17	4	23.5		T154 2507	•	•	•
M 25	x 2	140	28	-	18.0	14.5	17	4	23.0		•	•	•	•
M 26	x 1	140	28	-	18.0	14.5	17	4	25.0		•	•	•	•
M 26	x 1.5	140	28	-	18.0	14.5	17	4	24.5		T154 2607	•	•	•
M 26	x 2	140	28	-	18.0	14.5	17	4	24.0		•	•	•	•
M 27	x 1.5	140	28	-	20.0	16.0	19	4	25.5		T154 2707	•	•	•
M 27	x 2	140	28	-	20.0	16.0	19	4	25.0		T154 2708	•	•	•
M 28	x 1.5	140	28	-	20.0	16.0	19	4	26.5		T154 2807	•	•	•
M 28	x 2	140	28	-	20.0	16.0	19	4	26.0		•	•	•	•
M 30	x 1	150	28	-	22.0	18.0	21	4	29.0		T154 3005	•	•	•
M 30	x 1.5	150	28	-	22.0	18.0	21	4	28.5		T154 3007	•	•	•
M 30	x 2	150	28	-	22.0	18.0	21	4	28.0		•	•	•	•
M 32	x 1.5	150	28	-	22	18	21	4	30.5		T154 3207	•	•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Gun, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



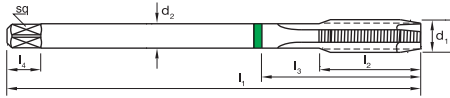
Catalogue Code											T154	T155	T156	T157
Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											<i>Br</i>	<i>Br</i>	<i>Blu</i>	<i>TIN</i>
Colour Ring & Application											N	N	N	N
Geometry												6G		
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #	
M 33	x 1.5	160	30	-	25	20	23	4	31.5	T154 3307	•	•	•	
M 33	x 2	160	30	-	25	20	23	4	31	T154 3308	•	•	•	
M 34	x 1.5	170	30	-	28	22	25	4	32.5	T154 3407	•	•	•	
M 35	x 1.5	170	30	-	28	22	25	4	33.5	T154 3507	•	•	•	
M 36	x 1.5	170	30	-	28	22	25	4	34.5	T154 3607	•	•	•	
M 36	x 2	170	30	-	28	22	25	4	34	T154 3608	•	•	•	
M 36	x 3	200	56	-	28	22	25	4	33	T154 3609	•	•	•	
M 38	x 1.5	170	30	-	28	22	25	4	36.5	T154 3807	•	•	•	
M 40	x 1.5	170	30	-	32	24	27	4	38.5	T154 4007	•	•	•	
M 42	x 1.5	170	30	-	32	24	27	4	40.5	T154 4207	•	•	•	
M 42	x 2	170	30	-	32	24	27	4	40	T154 4208	•	•	•	
M 42	x 3	200	30	-	32	24	27	4	39	T154 4209	•	•	•	
M 45	x 1.5	180	32	-	36	29	32	4	43.5	T154 4507	•	•	•	
M 45	x 2	180	32	-	36	29	32	4	43	T154 4508	•	•	•	
M 48	x 1.5	190	32	-	36	29	32	4	46.5	T154 4807	•	•	•	
M 50	x 1.5	190	32	-	36	29	32	4	48.5	T154 5007	•	•	•	
M 52	x 1.5	190	32	-	40	32	35	4	50.5	T154 5207	•	•	•	

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Gun, UNI



- Universal use. Suitable for a wide range of materials
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



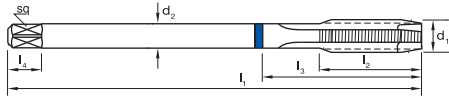
Catalogue Code											T162		T163	
Discount Group											D0402		D0410	
Material											PM-HSSE V3		PM-HSSE V3	
Surface Finish											Brt		TiAIN	
Colour Ring & Application											UNI		UNI	
Geometry														
Chamfer											Form B / 4.5 x P		Form B / 4.5 x P	
Limit & Nut Tolerance											ISO2 / 6H		ISO2 / 6H	
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #		
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		T162 0302	T163 0302		
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		T162 0403	T163 0403		
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		T162 0503	T163 0503		
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.3		T162 0604	T163 0604		
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		T162 0803	T163 0803		
M 8	x 0.75	80	18	-	6.0	4.9	8	3	7.3		T162 0804	T163 0804		
M 8	x 1	90	22	-	6.0	4.9	8	3	7.0		T162 0805	T163 0805		
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.3		T162 1004	T163 1004		
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		T162 1005	T163 1005		
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.8		T162 1006	T163 1006		
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		T162 1205	T163 1205		
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		T162 1206	T163 1206		
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		T162 1207	T163 1207		
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		T162 1405	T163 1405		
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		T162 1406	T163 1406		
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		T162 1407	T163 1407		
M 16	x 1	100	22	-	12.0	9.0	12	3	15.0		T162 1605	T163 1605		
M 16	x 1.5	100	22	-	12.0	9.0	12	3	14.5		T162 1607	T163 1607		
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		T162 1805	T163 1805		
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T162 1807	T163 1807		
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		T162 1808	T163 1808		
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		T162 2005	T163 2005		
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T162 2007	T163 2007		
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		T162 2008	T163 2008		

MF

Taps Metric Fine, Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



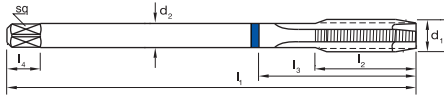
Catalogue Code											T158	T161
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		•	•
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		•	•
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		•	•
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.3		T158 0604	T161 0604
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		T158 0803	T161 0803
M 8	x 0.75	80	18	-	6.0	4.9	8	3	7.3		T158 0804	T161 0804
M 8	x 1	90	22	-	6.0	4.9	8	3	7.0		T158 0805	T161 0805
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.3		•	•
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		T158 1005	T161 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.8		T158 1006	T161 1006
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		T158 1205	T161 1205
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		T158 1206	T161 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		T158 1207	T161 1207
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		T158 1405	•
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		T158 1406	T161 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		T158 1407	T161 1407
M 16	x 1	100	22	-	12.0	9.0	12	3	15.0		T158 1605	•
M 16	x 1.5	100	22	-	12.0	9.0	12	3	14.5		•	•
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		T158 1805	•
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T158 1807	•
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		•	•
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		T158 2005	•
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T158 2007	•
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		•	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Gun, VA PM



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Through holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



Catalogue Code											T159	T160
Discount Group											D0402	D0408
Material											PM-HSSE V3	PM-HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											6HX	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		•	•
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		•	•
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		•	•
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.3		•	T160 0604
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		•	T160 0803
M 8	x 0.75	80	18	-	6.0	4.9	8	3	7.3		•	•
M 8	x 1	90	22	-	6.0	4.9	8	3	7.0		•	•
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.3		•	T160 1004
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		•	T160 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.8		•	•
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		•	T160 1205
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		•	T160 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		•	T160 1207
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		•	T160 1405
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		•	T160 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		•	•
M 16	x 1	100	22	-	12.0	9.0	12	3	15.0		•	T160 1605
M 16	x 1.5	100	22	-	12.0	9.0	12	3	14.5		•	•
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		•	•
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		•	T160 1807
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		•	•
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		•	T160 2005
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		•	•
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		•	•

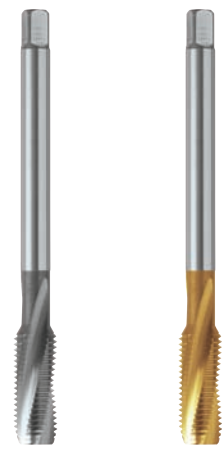
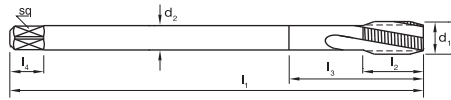
MF

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Spiral Flute, R15 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



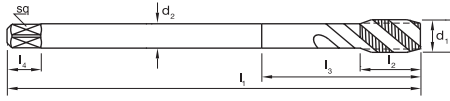
Catalogue Code											T243	T244
Discount Group											D0402	D0406
Material											HSSE V3	HSSE V3
Surface Finish											Brt	TIN
Colour Ring & Application											N	N
Geometry											R15°	R15°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	8	-	2.2	-	-	3	2.65		T243 0302	•
M 4	x 0.5	63	10	-	2.8	2.1	5	3	3.5		T243 0403	T244 0403
M 5	x 0.5	70	12	-	3.5	2.7	6	3	4.5		T243 0503	T244 0503
M 6	x 0.75	80	14	-	4.5	3.4	6	3	5.3		T243 0604	T244 0604
M 8	x 0.5	80	18	-	6.0	4.9	8	3	7.5		T243 0803	T244 0803
M 8	x 0.75	80	18	-	7.0	4.9	8	3	7.3		T243 0804	T244 0804
M 8	x 1	90	22	-	6.0	4.9	8	3	7.0		T243 0805	T244 0805
M 10	x 0.75	90	20	-	7.0	5.5	8	3	9.3		T243 1004	T244 1004
M 10	x 1	90	20	-	7.0	5.5	8	3	9.0		T243 1005	T244 1005
M 10	x 1.25	100	24	-	7.0	5.5	8	3	8.8		T243 1006	T244 1006
M 12	x 1	100	22	-	9.0	7.0	10	3	11.0		T243 1205	T244 1205
M 12	x 1.25	100	22	-	9.0	7.0	10	3	10.8		T243 1206	T244 1206
M 12	x 1.5	100	22	-	9.0	7.0	10	3	10.5		T243 1207	T244 1207
M 14	x 1	100	22	-	11.0	9.0	12	3	13.0		T243 1405	T244 1405
M 14	x 1.25	100	22	-	11.0	9.0	12	3	12.8		T243 1406	T244 1406
M 14	x 1.5	100	22	-	11.0	9.0	12	3	12.5		T243 1407	T244 1407
M 16	x 1	100	22	-	12.0	9.0	12	3	15.0		T243 1605	T244 1605
M 16	x 1.5	100	22	-	12.0	9.0	12	3	14.5		T243 1607	T244 1607
M 18	x 1	110	25	-	14.0	11.0	14	4	17.0		T243 1805	T244 1805
M 18	x 1.5	110	25	-	14.0	11.0	14	4	16.5		T243 1807	T244 1807
M 18	x 2	125	34	-	14.0	11.0	14	4	16.0		T243 1808	T244 1808
M 20	x 1	125	25	-	16.0	12.0	15	4	19.0		T243 2005	T244 2005
M 20	x 1.5	125	25	-	16.0	12.0	15	4	18.5		T243 2007	T244 2007
M 20	x 2	140	34	-	16.0	12.0	15	4	18.0		T243 2008	•

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



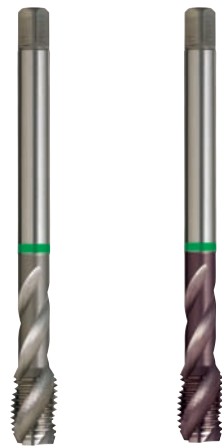
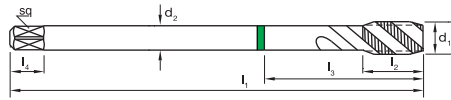
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Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Br	Br	Blu	TiN
Colour Ring & Application											N	N	N	N
Geometry											R40°	R40°	R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 3 / 6G	ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #	
M 3	x 0.35	56	4	-	2.2	-	-	3	2.65	•	•	•	•	
M 4	x 0.5	63	6	-	2.8	2.1	5	3	3.5	•	•	•	•	
M 5	x 0.5	70	7	-	3.5	2.7	6	3	4.5	•	•	•	•	
M 6	x 0.75	80	8	-	4.5	3.4	6	3	5.25	T245 0604	T246 0604	T247 0604	T248 0604	
M 8	x 0.5	80	10	-	6.0	4.9	8	3	7.5	•	•	•	•	
M 8	x 0.75	80	10	-	6.0	4.9	8	3	7.25	•	•	•	•	
M 8	x 1	90	8	-	6.0	4.9	8	3	7.25	T245 0805	T246 0805	T247 0805	T248 0805	
M 10	x 0.75	90	10	-	7.0	5.5	8	3	9.25	•	•	•	•	
M 10	x 1	90	10	-	7.0	5.5	8	3	9.0	T245 1005	T246 1005	T247 1005	T248 1005	
M 10	x 1.25	100	13	-	7.0	5.5	8	3	8.75	T245 1006	T246 1006	T247 1006	T248 1006	
M 12	x 1	100	14	-	9.0	7.0	10	3	11.0	•	T246 1205	•	•	
M 12	x 1.25	100	14	-	9.0	7.0	10	3	10.8	T245 1206	T246 1206	T247 1206	T248 1206	
M 12	x 1.5	100	14	-	9.0	7.0	10	3	10.5	T245 1207	T246 1207	T247 1207	T248 1207	
M 14	x 1	100	16	-	11.0	9.0	12	3	13.0	•	•	•	•	
M 14	x 1.25	100	16	-	11.0	9.0	12	3	12.8	•	•	•	•	
M 14	x 1.5	100	16	-	11.0	9.0	12	3	12.5	T245 1407	T246 1407	T247 1407	T248 1407	
M 16	x 1	100	16	-	12.0	9.0	12	3	14.5	•	•	•	•	
M 16	x 1.5	100	16	-	12.0	9.0	12	3	16.5	T245 1607	•	T247 1607	T248 1607	
M 18	x 1	110	20	-	14.0	11.0	14	4	17.0	•	•	•	•	
M 18	x 1.5	110	20	-	14.0	11.0	14	4	16.5	T245 1807	•	T247 1807	T248 1807	
M 18	x 2	125	20	-	14.0	11.0	14	4	16.0	•	•	•	•	
M 20	x 1	125	20	-	16.0	12.0	15	4	19.0	•	•	•	•	
M 20	x 1.5	125	20	-	16.0	12.0	15	4	18.5	T245 2007	•	T247 2007	T248 2007	
M 20	x 2	140	20	-	16.0	12.0	15	4	18.0	•	•	•	•	
M 22	x 1	125	15	-	18.0	14.5	17	4	18.5	•	•	•	•	
M 22	x 1.5	125	15	-	18.0	14.5	17	4	20.5	T245 2207	•	•	•	
M 22	x 2	140	20	-	18.0	14.5	17	4	20.0	T245 2208	•	•	•	
M 24	x 1	140	20	-	18.0	14.5	17	4	23.0	•	•	•	•	
M 24	x 1.5	140	20	-	18.0	14.5	17	4	22.5	T245 2407	•	•	•	
M 24	x 2	140	20	-	18.0	14.5	17	4	22.0	T245 2408	•	•	•	
M 25	x 1	140	15	-	18.0	14.5	17	4	24.0	•	•	•	•	
M 25	x 1.5	140	15	-	18.0	14.5	17	4	23.5	•	•	•	•	
M 25	x 2	140	15	-	18.0	14.5	17	4	23.0	•	•	•	•	
M 26	x 1	140	15	-	18.0	14.5	17	4	25.0	•	•	•	•	
M 26	x 1.5	140	15	-	18.0	14.5	17	4	24.5	T245 2607	•	•	•	
M 26	x 2	140	15	-	18.0	14.5	17	4	24.0	•	•	•	•	
M 27	x 1.5	140	20	-	20.0	16.0	19	4	25.5	T245 2707	•	•	•	
M 27	x 2	140	20	-	20.0	16.0	19	4	25.0	T245 2708	•	•	•	
M 28	x 1.5	140	15	-	20.0	16.0	19	4	26.5	T245 2807	•	•	•	
M 28	x 2	140	15	-	20.0	16.0	19	4	26.0	•	•	•	•	
M 30	x 1	150	20	-	22.0	18.0	21	4	29.0	•	•	•	•	
M 30	x 1.5	150	20	-	22.0	18.0	21	4	28.5	T245 3007	•	•	•	
M 30	x 2	150	20	-	22.0	18.0	21	4	28.0	T245 3008	•	•	•	

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Spiral Flute, R40 UNI



- Universal use. Suitable for a wide range of materials
- Blind holes
- Suitable for machine operations
- Depths up to approx. $3 \times d_1$



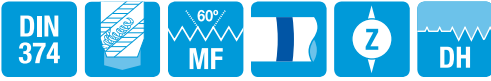
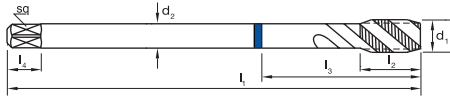
Catalogue Code											T253	T254
Discount Group											D0402	D0410
Material											PM-HSSE V3	PM-HSSE V3
Surface Finish											Brt	TiAIN
Colour Ring & Application											UNI	UNI
Geometry											R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	4	-	2.2	-	-	3	2.65		T253 0302	T254 0302
M 4	x 0.5	63	6	-	2.8	2.1	5	3	3.5		T253 0403	T254 0403
M 5	x 0.5	70	7	-	3.5	2.7	6	3	4.5		T253 0503	T254 0503
M 6	x 0.75	80	8	-	4.5	3.4	6	3	5.3		T253 0604	T254 0604
M 8	x 0.5	80	10	-	6.0	4.9	8	3	7.5		T253 0803	T254 0803
M 8	x 0.75	80	10	-	7.0	4.9	8	3	7.3		T253 0804	T254 0804
M 8	x 1	90	8	-	6.0	4.9	8	3	7.0		T253 0805	T254 0805
M 10	x 0.75	90	10	-	7.0	5.5	8	3	9.3		T253 1004	T254 1004
M 10	x 1	90	10	-	7.0	5.5	8	3	9.0		T253 1005	T254 1005
M 10	x 1.25	100	13	-	7.0	5.5	8	3	8.8		T253 1006	T254 1006
M 12	x 1	100	14	-	9.0	7.0	10	3	11.0		T253 1205	T254 1205
M 12	x 1.25	100	14	-	9.0	7.0	10	3	10.8		T253 1206	T254 1206
M 12	x 1.5	100	14	-	9.0	7.0	10	3	10.5		T253 1207	T254 1207
M 14	x 1	100	16	-	11.0	9.0	12	3	13.0		T253 1405	T254 1405
M 14	x 1.25	100	16	-	11.0	9.0	12	3	12.8		T253 1406	T254 1406
M 14	x 1.5	100	16	-	11.0	9.0	12	3	12.5		T253 1407	T254 1407
M 16	x 1	100	16	-	12.0	9.0	12	3	15.0		T253 1605	T254 1605
M 16	x 1.5	100	16	-	12.0	9.0	12	3	14.5		T253 1607	T254 1607
M 18	x 1	110	20	-	14.0	11.0	14	4	17.0		T253 1805	T254 1805
M 18	x 1.5	110	20	-	14.0	11.0	14	4	16.5		T253 1807	T254 1807
M 18	x 2	125	20	-	14.0	11.0	14	4	16.0		T253 1808	T254 1808
M 20	x 1	125	20	-	16.0	12.0	15	4	19.0		T253 2005	T254 2005
M 20	x 1.5	125	20	-	16.0	12.0	15	4	18.5		T253 2007	T254 2007
M 20	x 2	140	20	-	16.0	12.0	15	4	18.0		T253 2008	T254 2008

MF

Taps Metric Fine, Spiral Flute, R45 VADH



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



Catalogue Code											T249	T251
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											R45°	R45°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	ISO 2 / 6H
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	4	-	2.2	-	-	3	2.65		•	•
M 4	x 0.5	63	6	-	2.8	2.1	5	3	3.5		•	•
M 5	x 0.5	70	7	-	3.5	2.7	6	3	4.5		•	•
M 6	x 0.75	80	8	-	4.5	3.4	6	3	5.3		T249 0604	T251 0604
M 8	x 0.5	80	10	-	6.0	4.9	8	3	7.5		•	•
M 8	x 0.75	80	10	-	7.0	4.9	8	3	7.3		•	•
M 8	x 1	90	8	-	6.0	4.9	8	3	7.0		T249 0805	T251 0805
M 10	x 0.75	90	10	-	7.0	5.5	8	3	9.3		•	•
M 10	x 1	90	10	-	7.0	5.5	8	3	9.0		T249 1005	T251 1005
M 10	x 1.25	100	13	-	7.0	5.5	8	3	8.8		T249 1006	T251 1006
M 12	x 1	100	14	-	9.0	7.0	10	3	11.0		T249 1205	T251 1205
M 12	x 1.25	100	14	-	9.0	7.0	10	3	10.8		T249 1206	T251 1206
M 12	x 1.5	100	14	-	9.0	7.0	10	3	10.5		•	•
M 14	x 1	100	16	-	11.0	9.0	12	3	13.0		•	•
M 14	x 1.25	100	16	-	11.0	9.0	12	3	12.8		•	•
M 14	x 1.5	100	16	-	11.0	9.0	12	3	12.5		T249 1407	T251 1407
M 16	x 1	100	16	-	12.0	9.0	12	3	15.0		•	•
M 16	x 1.5	100	16	-	12.0	9.0	12	3	14.5		•	•
M 18	x 1	110	20	-	14.0	11.0	14	4	17.0		•	•
M 18	x 1.5	110	20	-	14.0	11.0	14	4	16.5		•	•
M 18	x 2	125	20	-	14.0	11.0	14	4	16.0		•	•
M 20	x 1	125	20	-	16.0	12.0	15	4	19.0		•	•
M 20	x 1.5	125	20	-	16.0	12.0	15	4	18.5		•	•
M 20	x 2	140	20	-	16.0	12.0	15	4	18.0		•	•

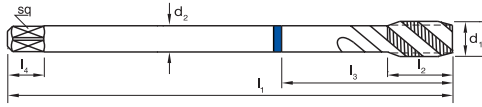
MF

• Available on request as special manufacture. Subject to lead time.

Taps Metric Fine, Spiral Flute, R50 VA PM



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



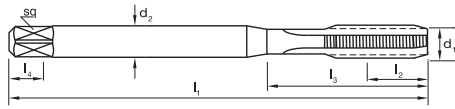
Catalogue Code											T250	T252
Discount Group											D0402	D0408
Material											PM-HSSE V3	PM-HSSE V3
Surface Finish											Blu	TiCN
Colour Ring & Application											VA PM	VA PM
Geometry											R50°	R50°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 2 / 6H	6HX
d ₁	Pitch	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
M 3	x 0.35	56	4	-	2.2	-	-	3	2.65		•	•
M 4	x 0.5	63	6	-	2.8	2.1	5	3	3.5		•	•
M 5	x 0.5	70	7	-	3.5	2.7	6	3	4.5		•	•
M 6	x 0.75	80	8	-	4.5	3.4	6	3	5.3	T250 0604	•	T252 0604
M 8	x 0.5	80	10	-	6.0	4.9	8	3	7.5	•	•	T252 0803
M 8	x 0.75	80	10	-	7.0	4.9	8	3	7.3	•	•	•
M 8	x 1	90	8	-	6.0	4.9	8	3	7.0	T250 0805	•	•
M 10	x 0.75	90	10	-	7.0	5.5	8	3	9.3	•	•	T252 1004
M 10	x 1	90	10	-	7.0	5.5	8	3	9.0	T250 1005	•	T252 1005
M 10	x 1.25	100	13	-	7.0	5.5	8	3	8.8	T250 1006	•	•
M 12	x 1	100	14	-	9.0	7.0	10	3	11.0	T250 1205	•	T252 1205
M 12	x 1.25	100	14	-	9.0	7.0	10	3	10.8	T250 1206	•	T252 1206
M 12	x 1.5	100	14	-	9.0	7.0	10	3	10.5	T250 1207	•	T252 1207
M 14	x 1	100	16	-	11.0	9.0	12	3	13.0	•	•	T252 1405
M 14	x 1.25	100	16	-	11.0	9.0	12	3	12.8	•	•	T252 1406
M 14	x 1.5	100	16	-	11.0	9.0	12	3	12.5	T250 1407	•	•
M 16	x 1	100	16	-	12.0	9.0	12	3	15.0	•	•	T252 1605
M 16	x 1.5	100	16	-	12.0	9.0	12	3	14.5	T250 1607	•	•
M 18	x 1	110	20	-	14.0	11.0	14	4	17.0	•	•	T252 1805
M 18	x 1.5	110	20	-	14.0	11.0	14	4	16.5	•	•	•
M 18	x 2	125	20	-	14.0	11.0	14	4	16.0	•	•	•
M 20	x 1	125	20	-	16.0	12.0	15	4	19.0	•	•	•
M 20	x 1.5	125	20	-	16.0	12.0	15	4	18.5	T250 2007	•	T252 2007
M 20	x 2	140	20	-	16.0	12.0	15	4	18.0	•	•	•

MF

Taps UNC, Straight Flute, GG



- Use in grey cast iron (GG), brittle plastics, hard bronzes to a hardness of 850 N/mm²
- Through & blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



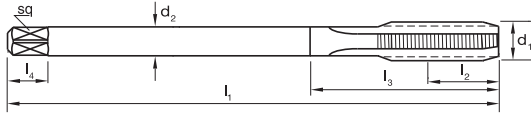
Catalogue Code											T302	T303
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Ni + Blu	TICN
Colour Ring & Application											GG	GG
Geometry											Low Relief	Low Relief
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2BX	2BX
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85		•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•
# 4	- 40	56	11	18	3.5	2.7	6	2	2.3		•	•
# 5	- 40	56	11	18	3.5	2.7	6	3	2.6		•	•
# 6	- 32	56	13	19	4.0	3.0	6	3	2.8		•	•
# 8	- 32	63	13	19	4.5	3.4	6	3	3.4		•	•
# 10	- 24	70	16	20	6.0	4.9	8	3	3.8		•	•
# 12	- 24	80	19	29	6.0	4.9	8	3	4.5		•	•
1/4	- 20	80	19	30	7.0	5.5	8	3	5.1		T302 0635	•
5/16	- 18	90	22	34	8.0	6.2	9	3	6.6		T302 0794	•
3/8	- 16	100	22	35	10.0	7.0	10	3	8.0		T302 0953	•

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Straight Flute, GG



- Use in grey cast iron (GG), brittle plastics, hard bronzes to a hardness of 850 N/mm²
- Through & blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



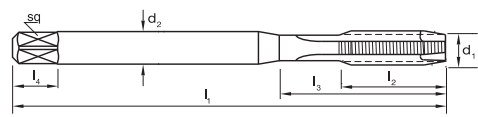
Catalogue Code											T302		T303	
Discount Group											D0402		D0408	
Material											HSSE V3		HSSE V3	
Surface Finish											Ni + Blu		TICN	
Colour Ring & Application											GG		GG	
Geometry											Low Relief		Low Relief	
Chamfer											Form C / 2.5 x P		Form C / 2.5 x P	
Limit & Nut Tolerance											2BX		2BX	
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #		
7/16	- 14	100	24	-	8.0	6.2	8	3	9.4		•	•		
1/2	- 13	110	28	-	9.0	7.0	10	3	10.8	T302 1270	•	•		
9/16	- 12	110	30	-	11.0	9.0	12	3	12.2	•	•	•		
5/8	- 11	110	32	-	12.0	9.0	12	3	13.5	T302 1588	•	•		
3/4	- 10	125	34	-	14.0	11.0	14	4	16.5	T302 1905	•	•		
7/8	- 9	140	34	-	18.0	14.5	17	4	19.5	•	•	•		
1	- 8	160	38	-	18.0	14.5	17	4	22.2	T302 2540	•	•		

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Gun, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁

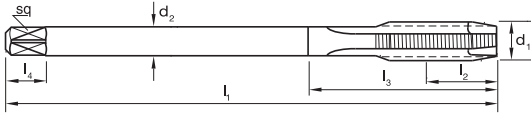


Catalogue Code					T164	T165	T166	T167						
Discount Group					D0402	D0402	D0402	D0406						
Material					HSSE V3	HSSE V3	HSSE V3	HSSE V3						
Surface Finish					<i>Br</i>	<i>Br</i>	<i>Blu</i>	<i>TiN</i>						
Colour Ring & Application					N	N	N	N						
Geometry														
Chamfer					Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P						
Limit & Nut Tolerance					2B	3B	2B	2B						
	d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #
# 2	-	56	45	9	10	2.8	2.1	5	2	1.85	T164 0218	•	•	•
# 3	-	48	50	9	10	2.8	2.1	5	2	2.1	T164 0251	•	•	•
# 4	-	40	56	11	18	3.5	2.7	6	2	2.3	T164 0284	•	•	•
# 5	-	40	56	11	18	3.5	2.7	6	3	2.6	T164 0318	•	•	•
# 6	-	32	56	13	19	4.0	3.0	6	3	2.8	T164 0351	•	•	•
# 8	-	32	63	13	19	4.5	3.4	6	3	3.4	T164 0417	•	•	•
# 10	-	24	70	16	20	6.0	4.9	8	3	3.8	T164 0483	•	•	•
# 12	-	24	80	19	29	6.0	4.9	8	3	4.5	T164 0549	•	•	•
1/4	-	20	80	19	30	7.0	5.5	8	3	5.1	T164 0635	•	T166 0635	T167 0635
5/16	-	18	90	22	34	8.0	6.2	9	3	6.6	T164 0794	•	T166 0794	T167 0794
3/8	-	16	100	22	35	10.0	7.0	10	3	8.0	T164 0953	•	T166 0953	T167 0953

Taps UNC, Gun, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁

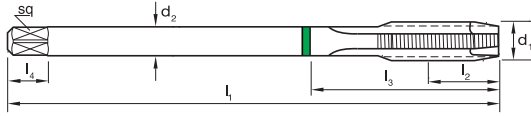


Catalogue Code											T164	T165	T166	T167
Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	Brt	Blu	TIN
Colour Ring & Application											N	N	N	N
Geometry														
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	3B	2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	Item #	
7/16	- 14	100	24	-	8.0	6.2	8	3	9.4	T164 1111	•	•	•	
1/2	- 13	110	28	-	9.0	7.0	10	3	10.8	T164 1270	•	T166 1270	T167 1270	
9/16	- 12	110	30	-	11.0	9.0	12	3	12.2	T164 1429	•	•	•	
5/8	- 11	110	32	-	12.0	9.0	12	3	13.5	T164 1588	•	T166 1588	T167 1588	
3/4	- 10	125	34	-	14.0	11.0	14	4	16.5	T164 1905	•	T166 1905	T167 1905	
7/8	- 9	140	34	-	18.0	14.5	17	4	19.5	T164 2223	•	•	•	
1	- 8	160	38	-	18.0	14.5	17	4	22.2	T164 2540	•	•	•	

Taps UNC, Gun, UNI



- Universal use. Suitable for a wide range of materials
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



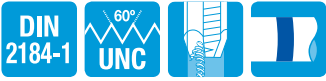
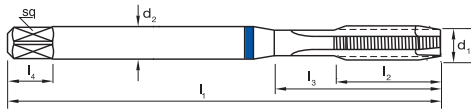
Catalogue Code											T168	T169
Discount Group											D0402	D0410
Material											PM-HSSE V3	PM-HSSE V3
Surface Finish											<i>Blu</i>	<i>TiAIN</i>
Colour Ring & Application											UNI	UNI
Geometry												
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
7/16	- 14	100	24	-	8.0	6.2	8	3	9.4		•	•
1/2	- 13	110	28	-	9.0	7.0	10	3	10.8		T168 1270	T169 1270
9/16	- 12	110	30	-	11.0	9.0	12	3	12.2		•	•
5/8	- 11	110	32	-	12.0	9.0	12	3	13.5		T168 1588	T169 1588
3/4	- 10	125	34	-	14.0	11.0	14	4	16.5		T168 1905	T169 1905
7/8*	- 9	140	34	-	18.0	14.5	17	4	19.5		•	•
1*	- 8	160	38	-	18.0	14.5	17	4	22.2		T168 2540	T169 2540

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



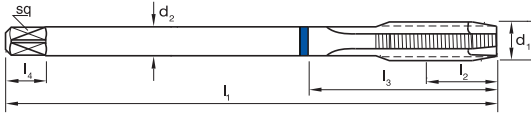
Catalogue Code											T170	T171
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85		•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•
# 4	- 40	56	11	18	3.5	2.7	6	2	2.3		•	•
# 5	- 40	56	11	18	3.5	2.7	6	3	2.6		•	•
# 6	- 32	56	13	19	4.0	3.0	6	3	2.8		T170 0351	T171 0351
# 8	- 32	63	13	19	4.5	3.4	6	3	3.4		T170 0417	T171 0417
# 10	- 24	70	16	20	6.0	4.9	8	3	3.8		T170 0483	T171 0483
# 12	- 24	80	19	29	6.0	4.9	8	3	4.5		•	•
1/4	- 20	80	19	30	7.0	5.5	8	3	5.1		T170 0635	T171 0635
5/16	- 18	90	22	34	8.0	6.2	9	3	6.6		T170 0794	T171 0794
3/8	- 16	100	22	35	10.0	7.0	10	3	8.0		T170 0953	T171 0953

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



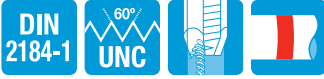
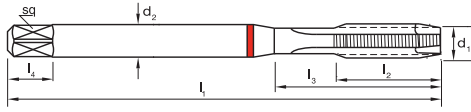
Catalogue Code											T170	T171
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
7/16	- 14	100	24	-	8.0	6.2	8	3	9.4		T170 1111	T171 1111
1/2	- 13	110	28	-	9.0	7.0	10	3	10.8		T170 1270	T171 1270
9/16	- 12	110	30	-	11.0	9.0	12	3	12.2		T170 1429	•
5/8	- 11	110	32	-	12.0	9.0	12	3	13.5		T170 1588	T171 1588
3/4	- 10	125	34	-	14.0	11.0	14	4	16.5		T170 1905	T171 1905
7/8	- 9	140	34	-	18.0	14.5	17	4	19.5		T170 2223	T171 2223
1	- 8	160	38	-	18.0	14.5	17	4	22.2		T170 2540	T171 2540

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Gun, H



- Use in harder short chipping materials up to 45 HR_c
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



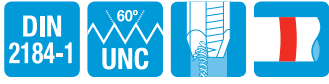
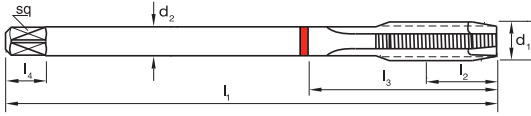
Catalogue Code											T172	T666
Discount Group											D0402	D0408
Material											PM-HSS Co	PM-HSS Co
Surface Finish											Blu	TICN
Colour Ring & Application											H	H
Geometry											Low Relief	Low Relief
Chamfer											Form C / 3 x P	Form C / 3 x P
Limit & Nut Tolerance											2BX	2BX
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85		•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•
# 4	- 40	56	11	18	3.5	2.7	6	2	2.3		•	•
# 5	- 40	56	11	18	3.5	2.7	6	3	2.6		•	•
# 6	- 32	56	13	19	4.0	3.0	6	3	2.8		•	•
# 8	- 32	63	13	19	4.5	3.4	6	3	3.4		•	•
# 10	- 24	70	16	20	6.0	4.9	8	3	3.8		•	•
# 12	- 24	80	19	29	6.0	4.9	8	3	4.5		•	•
1/4	- 20	80	19	30	7.0	5.5	8	3	5.1		T172 0635	T666 0635
5/16	- 18	90	22	34	8.0	6.2	9	3	6.6		T172 0794	•
3/8	- 16	100	22	35	10.0	7.0	10	3	8.0		T172 0953	T666 0953

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Gun, H



- Use in harder short chipping materials up to 45 HR_c
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



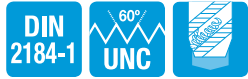
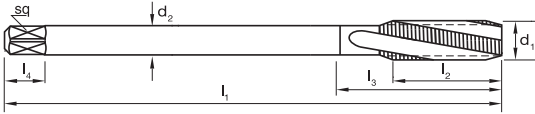
Catalogue Code		T172		T666							
Discount Group		D0402		D0408							
Material		PM-HSS Co		PM-HSS Co							
Surface Finish		Blu		TICN							
Colour Ring & Application		H		H							
Geometry		Low Relief		Low Relief							
Chamfer		Form C / 3 x P		Form C / 3 x P							
Limit & Nut Tolerance		2BX		2BX							
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
7/16	- 14	100	24	-	8.0	6.2	8	3	9.4	T172 1111	T666 1111
1/2	- 13	110	28	-	9.0	7.0	10	3	10.8	T172 1270	T666 1270
9/16	- 12	110	30	-	11.0	9.0	12	3	12.2	T172 1429	T666 1429
5/8	- 11	110	32	-	12.0	9.0	12	3	13.5	T172 1588	T666 1588
3/4	- 10	125	34	-	14.0	11.0	14	4	16.5	T172 1905	T666 1905
7/8*	- 9	140	34	-	18.0	14.5	17	4	19.5	T172 2223	T666 2223
1*	- 8	160	38	-	18.0	14.5	17	4	22.2	T172 2540	T666 2540
1.1/8*	- 7	180	45	-	22.0	18.0	21	4	25.0	T172 2858	T666 2858

UNC

Taps UNC, Spiral Flute, R15 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁

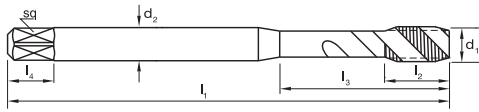


Catalogue Code											T255	T256	T257
Discount Group											D0402	D0406	D0402
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	TIN	Brt
Colour Ring & Application											N	N	N
Geometry											R15°	R15°	R15°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	2B	3B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	Item #	
7/16	- 14	100	15	-	8.0	6.2	8	3	9.4	•	•	•	
1/2	- 13	110	18	-	9.0	7.0	10	3	10.8	•	•	•	
9/16	- 12	110	20	-	11.0	9.0	12	3	12.2	•	•	•	
5/8	- 11	110	20	-	12.0	9.0	12	3	13.5	•	•	•	
3/4	- 10	125	25	-	14.0	11.0	14	4	16.5	•	•	•	
7/8	- 9	140	28	-	18.0	14.5	17	4	19.5	•	•	•	
1	- 8	160	32	-	18.0	14.5	17	4	22.2	•	•	•	

Taps UNC, Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



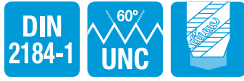
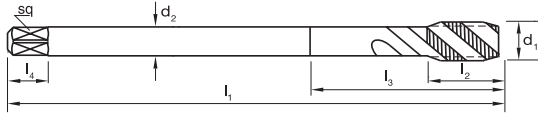
Catalogue Code											T258	T259	T260	T273
Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	Brt	Blu	TiN
Colour Ring & Application											N	N	N	N
Geometry											R40°	R40°	R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	3B	2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85		T258 0218	•	•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•	•	•
# 4	- 40	56	5	18	3.5	2.7	6	2	2.3		T258 0284	•	•	•
# 5	- 40	56	6	18	3.5	2.7	6	3	2.6		T258 0318	•	•	•
# 6	- 32	56	6	19	4.0	3.0	6	3	2.8		T258 0351	•	•	•
# 8	- 32	63	7	19	4.5	3.4	6	3	3.4		T258 0417	•	•	•
# 10	- 24	70	8	20	6.0	4.9	8	3	3.8		T258 0483	•	•	•
# 12	- 24	80	10	29	6.0	4.9	8	3	4.5		T258 0549	•	•	•
1/4	- 20	80	10	30	7.0	5.5	8	3	5.1		T258 0635	•	T260 0635	T273 0635
5/16	- 18	90	13	34	8.0	6.2	9	3	6.6		T258 0794	•	T260 0794	T273 0794
3/8	- 16	100	15	35	10.0	7.0	10	3	8.0		T258 0953	•	T260 0953	T273 0953

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



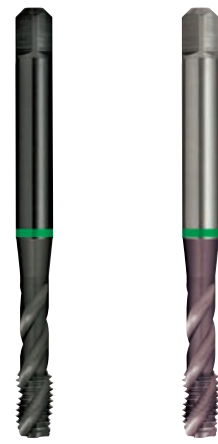
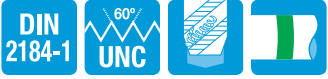
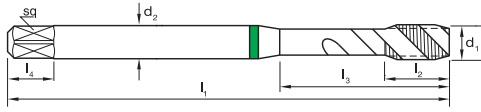
Catalogue Code											T258	T259	T260	T273
Discount Group											D0402	D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3	HSSE V3
Surface Finish											Br	Br	Blu	TIN
Colour Ring & Application											N	N	N	N
Geometry											R40°	R40°	R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	3B	2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #	Item #
7/16	- 14	100	15	-	8.0	6.2	8	3	9.4		T258 1111	•	•	•
1/2	- 13	110	18	-	9.0	7.0	10	3	10.8		T258 1270	•	T260 1270	T273 1270
9/16	- 12	110	20	-	11.0	9.0	12	3	12.2		T258 1429	•	•	•
5/8	- 11	110	20	-	12.0	9.0	12	3	13.5		T258 1588	•	T260 1588	T273 1588
3/4	- 10	125	25	-	14.0	11.0	14	4	16.5		T258 1905	•	T260 1905	T273 1905
7/8	- 9	140	28	-	18.0	14.5	17	4	19.5		T258 2223	•	•	•
1	- 8	160	32	-	18.0	14.5	17	4	22.2		T258 2540	•	•	•

UNC

Taps UNC, Spiral Flute, R40 UNI



- Universal use. Suitable for a wide range of materials
- Blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d_1

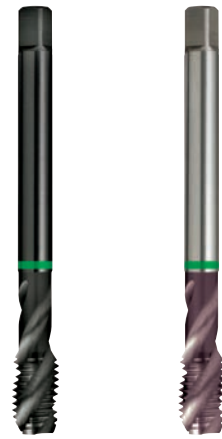
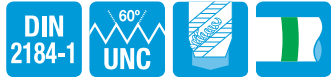
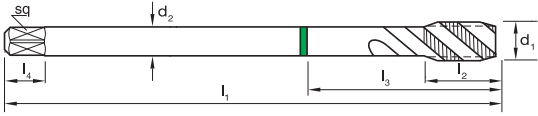


Catalogue Code		T266	T267								
Discount Group		D0402	D0410								
Material		PM-HSSE V3	PM-HSSE V3								
Surface Finish		Blu	TIAIN								
Colour Ring & Application		UNI	UNI								
Geometry		R40°	R40°								
Chamfer		Form C / 2.5 x P	Form C / 2.5 x P								
Limit & Nut Tolerance		2B	2B								
d_1	TPI	l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85	•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1	•	•
# 4	- 40	56	5	18	3.5	2.7	6	2	2.3	•	•
# 5	- 40	56	6	18	3.5	2.7	6	3	2.6	•	•
# 6	- 32	56	6	19	4.0	3.0	6	3	2.8	•	•
# 8	- 32	63	7	19	4.5	3.4	6	3	3.4	•	•
# 10	- 24	70	8	20	6.0	4.9	8	3	3.8	•	•
# 12	- 24	80	10	29	6.0	4.9	8	3	4.5	•	•
1/4	- 20	80	10	30	7.0	5.5	8	3	5.1	T266 0635	T267 0635
5/16	- 18	90	13	34	8.0	6.2	9	3	6.6	T266 0794	T267 0794
3/8	- 16	100	15	35	10.0	7.0	10	3	8.0	T266 0953	T267 0953

Taps UNC, Spiral Flute, R40 UNI



- Universal use. Suitable for a wide range of materials
- Blind holes
- Suitable for machine operations
- Depths up to approx. $3 \times d_1$



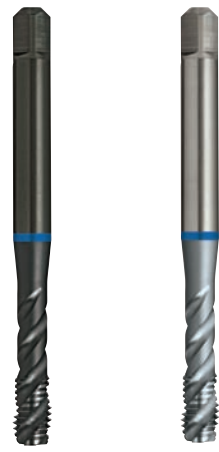
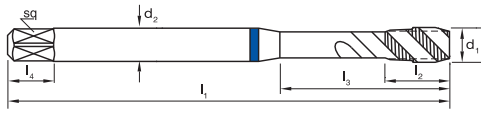
Catalogue Code	T266		T267								
Discount Group	D0410		D0410								
Material	PM-HSSE V3		PM-HSSE V3								
Surface Finish	Blu		TAIN								
Colour Ring & Application	UNI		UNI								
Geometry	R40°		R40°								
Chamfer	Form C / 2.5 x P		Form C / 2.5 x P								
Limit & Nut Tolerance	2B		2B								
d_1	TPI	l_1	l_2	l_3	d_2	sq	l_4	z	drill Ø	Item #	Item #
7/16	- 14	100	15	-	8.0	6.2	8	3	9.4	•	•
1/2	- 13	110	18	-	9.0	7.0	10	3	10.8	T266 1270	T267 1270
9/16	- 12	110	20	-	11.0	9.0	12	3	12.2	•	T267 1429
5/8	- 11	110	20	-	12.0	9.0	12	3	13.5	T266 1588	T267 1588
3/4	- 10	125	25	-	14.0	11.0	14	4	16.5	T266 1905	T267 1905
7/8*	- 9	140	28	-	18.0	14.5	17	4	19.5	•	•
1*	- 8	160	32	-	18.0	14.5	17	4	22.2	T266 2540	T267 2540

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Spiral Flute, R45 VADH



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



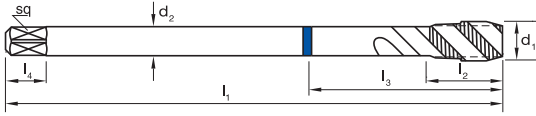
Catalogue Code											T261	T262
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											R45°	R45°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
# 2	- 56	45	9	10	2.8	2.1	5	2	1.85		•	•
# 3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•
# 4	- 40	56	5	18	3.5	2.7	6	2	2.3		T261 0284	T262 0284
# 5	- 40	56	6	18	3.5	2.7	6	3	2.6		•	•
# 6	- 32	56	6	19	4.0	3.0	6	3	2.8		T261 0351	T262 0351
# 8	- 32	63	7	19	4.5	3.4	6	3	3.4		T261 0417	T262 0417
# 10	- 24	70	8	20	6.0	4.9	8	3	3.8		T261 0483	T262 0483
# 12	- 24	80	10	29	6.0	4.9	8	3	4.5		•	•
1/4	- 20	80	10	30	7.0	5.5	8	3	5.1		T261 0635	T262 0635
5/16	- 18	90	13	34	8.0	6.2	9	3	6.6		T261 0794	T262 0794
3/8	- 16	100	15	35	10.0	7.0	10	3	8.0		T261 0953	T262 0953

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Spiral Flute, R45 VADH



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



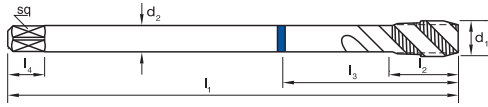
Catalogue Code											T261	T262
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											R45°	R45°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
7/16	- 14	100	15	-	8.0	6.2	8	3	9.4		T261 1111	T262 1111
1/2	- 13	110	18	-	9.0	7.0	10	3	10.8		T261 1270	T262 1270
9/16	- 12	110	20	-	11.0	9.0	12	3	12.2	•	•	•
5/8	- 11	110	20	-	12.0	9.0	12	3	13.5		T261 1588	T262 1588
3/4	- 10	125	25	-	14.0	11.0	14	4	16.5		T261 1905	T262 1905
7/8	- 9	140	28	-	18.0	14.5	17	4	19.5		T261 2223	T262 2223
1	- 8	160	32	-	18.0	14.5	17	4	22.2		T261 2540	T262 2540

• Available on request as special manufacture. Subject to lead time.

Taps 8UN, Spiral Flute, R40 VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 2.5 x d₁



Catalogue Code											T263	T264
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Brt	TICN
Colour Ring & Application											VA	VA
Geometry											R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
1.1/8	- 8	180	30	-	22.0	18.0	21	4	25.5		T263 2858	T264 2858
1.1/4	- 8	180	30	-	22.0	18.0	21	4	28.5		T263 3175	T264 3175
1.3/8	- 8	200	30	-	28.0	22.0	25	4	31.75		T263 3493	T264 3493
1.1/2	- 8	200	30	-	28.0	22.0	25	6	35.0		T263 3810	T264 3810
1.5/8	- 8	200	30	-	32.0	24.0	27	6	38.0		T263 4128	T264 4128
1.3/4	- 8	220	30	-	36.0	29.0	3	6	41.5		T263 4445	T264 4445
1.7/8	- 8	250	30	-	40.0	32.0	35	6	44.5		T263 4763	T264 4763
2	- 8	250	33	-	40.0	32.0	35	6	47.5		T263 5080	T264 5080

UN

drilling stainless steel? a perfect partner for VA taps...

BLACK MAGIC

D153 (stub)

D169 (Jobber)

High Helix & Unique Flute Form:
40° flute helix with unique radiused flute form. Produces short chips, even in Stainless Steel & Copper alloys, allowing for non-step drilling of 3 to 4x hole depths possible. Resulting in superior drill life & hole condition.



Material: SS304
Ø8mm / depth 16mm
Vc = 20m/min
f = 0.12mm/rev



Material: Cu
Ø8mm / depth 5mm
Vc = 40m/min
f = 0.15mm/rev

Point Geometry:

The cutting edge point geometry is ultra sharp, which generates lower forces when drilling stainless steels.

This also makes it ideal for soft steels, copper and aluminum alloys.

Tool Material & Coating:

Made from premium Cobalt grade of High Speed Steel (HSS Co) with a super smooth TiAlN coating, provides the optimal combination for high heat resistance.

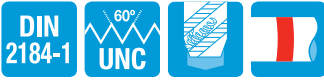
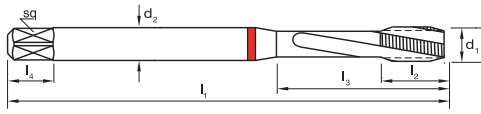
Tapping Drill!

Ideal pre-tapping drill, improves tap life, as work hardening the walls of the hole are eliminated.

Taps UNC, Spiral Flute, R15 H



- Use in harder short chipping materials up to 45 HR_c
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



Catalogue Code											T265	T667
Discount Group											D0402	D0408
Material											PM-HSS Co	PM-HSS Co
Surface Finish											Blu	TICN
Colour Ring & Application											H	H
Geometry											R15°	R15°
Chamfer											Form C / 3 x P	Form C / 3 x P
Limit & Nut Tolerance											2BX	2BX
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
#2	- 56	45	9	10	2.8	2.1	5	2	1.85		•	•
#3	- 48	50	9	10	2.8	2.1	5	2	2.1		•	•
#4	- 40	56	5	18	3.5	2.7	6	2	2.3		•	•
#5	- 40	56	6	18	3.5	2.7	6	3	2.6		•	•
#6	- 32	56	6	19	4.0	3.0	6	3	2.8		•	•
#8	- 32	63	7	19	4.5	3.4	6	3	3.4		•	•
#10	- 24	70	8	20	6.0	4.9	8	3	3.8		•	•
#12	- 24	80	10	29	6.0	4.9	8	3	4.5		•	•
1/4	- 20	80	10	30	7.0	5.5	8	3	5.1		T265 0635	T667 0635
5/16	- 18	90	13	34	8.0	6.2	9	3	6.6		T265 0794	•
3/8	- 16	100	15	35	10.0	7.0	10	3	8.0		T265 0953	T667 0953

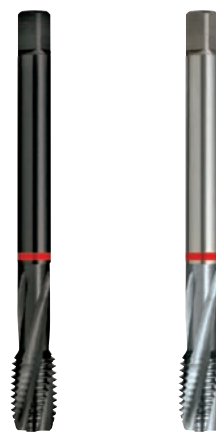
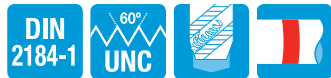
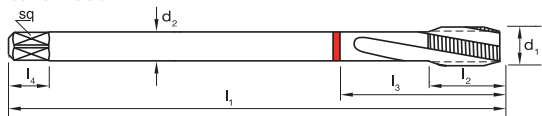
UNC

• Available on request as special manufacture. Subject to lead time.

Taps UNC, Spiral Flute, R15 H



- Use in harder short chipping materials up to 45 HR_c
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



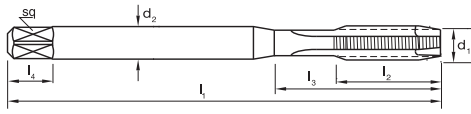
										T265	T667
Catalogue Code										D0402	D0408
Discount Group											
Material										PM-HSS Co	PM-HSS Co
Surface Finish										Blu	TICN
Colour Ring & Application										H	H
Geometry										R15°	R15°
Chamfer										Form C / 3 x P	Form C / 3 x P
Limit & Nut Tolerance										2BX	2BX
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
7/16	- 14	100	15	-	8.0	6.2	8	3	9.4	T265 1111	T667 1111
1/2	- 13	110	18	-	9.0	7.0	10	4	10.8	T265 1270	T667 1270
9/16	- 12	110	20	-	11.0	9.0	12	4	12.2	T265 1429	T667 1429
5/8	- 11	110	20	-	12.0	9.0	12	4	13.5	T265 1588	T667 1588
3/4	- 10	125	25	-	14.0	11.0	14	4	16.5	T265 1905	T667 1905
7/8*	- 9	140	28	-	18.0	14.5	17	4	19.5	T265 2223	T667 2223
1*	- 8	160	32	-	18.0	14.5	17	4	22.2	T265 2540	T667 2540
1.1/8*	- 7	180	45	-	22.0	18.0	21	4	25.0	T265 2858	T667 2858

UNC

Taps UNF, Gun, N



- General purpose use, materials up to approx. 1000 N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



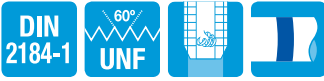
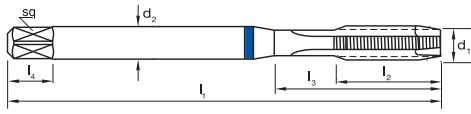
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Discount Group											D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											Br	Br	TiN
Colour Ring & Application											N	N	N
Geometry													
Chamfer											Form B / 4.5 x P	Form C / 2.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	3B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
#2	- 64	45	9	-	2.8	2.1	5	2	1.9		T173 0218	•	T175 0218
#3	- 56	50	9	-	2.8	2.1	5	2	2.1		•	•	•
#4	- 48	56	11	18	3.5	2.7	6	2	2.35		T173 0284	•	T175 0284
#5	- 44	56	11	18	3.5	2.7	6	3	2.65		•	•	•
#6	- 40	56	13	20	4.0	3.0	6	3	2.9		T173 0351	•	T175 0351
#8	- 36	63	13	21	4.5	3.4	6	3	3.5		T173 0417	•	T175 0417
#10	- 32	70	16	25	6.0	4.9	8	3	4.1		T173 0483	•	T175 0483
#12	- 28	80	19	30	6.0	4.9	8	3	4.6		•	•	•
1/4	- 28	80	19	30	7.0	5.5	8	3	5.5		T173 0635	•	T175 0635
5/16	- 24	90	22	35	8.0	6.2	9	3	6.9		T173 0794	•	T175 0794
3/8	- 24	100	20	35	10.0	8.0	11	3	8.5		T173 0953	•	T175 0953

UNF

Taps UNF, Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



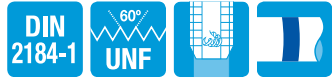
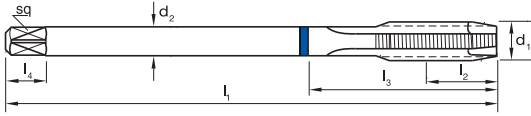
Catalogue Code											T176	T177
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #	
# 2	- 64	45	9	-	2.8	2.1	5	2	1.9	•	•	
# 3	- 56	50	9	-	2.8	2.1	5	2	2.1	•	•	
# 4	- 48	56	11	18	3.5	2.7	6	2	2.35	•	•	
# 5	- 44	56	11	18	3.5	2.7	6	3	2.65	•	•	
# 6	- 40	56	13	20	4.0	3.0	6	3	2.9	T176 0351	•	
# 8	- 36	63	13	21	4.5	3.4	6	3	3.5	T176 0417	•	
# 10	- 32	70	16	25	6.0	4.9	8	3	4.1	T176 0483	•	
# 12	- 28	80	19	30	6.0	4.9	8	3	4.6	•	•	
1/4	- 28	80	19	30	7.0	5.5	8	3	5.5	T176 0635	T177 0635	
5/16	- 24	90	22	35	8.0	6.2	9	3	6.9	T176 0794	T177 0794	
3/8	- 24	100	20	35	10.0	8.0	11	3	8.5	T176 0953	T177 0953	

UNF

Taps UNF, Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Through holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁

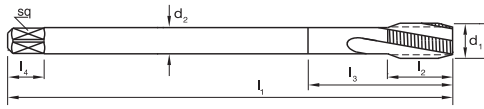


Catalogue Code											T176		T177	
Discount Group											D0402		D0408	
Material											HSSE V3		HSSE V3	
Surface Finish											Blu		TICN	
Colour Ring & Application											VA		VA	
Geometry											Special Relief		Special Relief	
Chamfer											Form B / 4.5 x P		Form B / 4.5 x P	
Limit & Nut Tolerance											2B		2B	
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #		
7/16	- 20	100	24	-	8.0	6.2	8	3	9.8		T176 1111	T177 1111		
1/2	- 20	110	28	-	9.0	7.0	10	3	11.5		T176 1270	T177 1270		
9/16	- 18	110	32	-	11.0	9.0	12	3	12.8		T176 1429	T177 1429		
5/8	- 18	110	32	-	12.0	9.0	12	3	14.5		T176 1588	T177 1588		
3/4	- 16	125	34	-	14.0	11.0	14	4	17.5		T176 1905	T177 1905		
7/8	- 14	140	34	-	18.0	14.5	17	4	20.5		T176 2223	T177 2223		
1	- 12	160	38	-	18.0	14.5	17	4	23.5		T176 2540	T177 2540		

Taps UNF, Spiral Flute, R15 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



DIN 2184-1

60° UNF



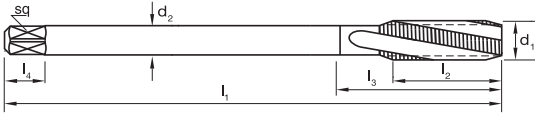
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Discount Group											D0402
Material											HSSE V3
Surface Finish											Brt
Colour Ring & Application											N
Geometry											R15°
Chamfer											Form C / 2.5 x P
Limit & Nut Tolerance											2B
#	d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
# 2	- 64	45	9	-	2.8	2.1	5	2	1.9		•
# 3	- 56	50	9	-	2.8	2.1	5	2	2.1		•
# 4	- 48	56	5	18	3.5	2.7	6	2	2.35		•
# 5	- 44	56	6	18	3.5	2.7	6	3	2.65		•
# 6	- 40	56	6	20	4.0	3.0	6	3	2.9		•
# 8	- 36	63	7	21	4.5	3.4	6	3	3.5		•
# 10	- 32	70	8	25	6.0	4.9	8	3	4.1		•
# 12	- 28	80	10	30	6.0	4.9	8	3	4.6		•
1/4	- 28	80	10	30	7.0	5.5	8	3	5.5		•
5/16	- 24	90	13	35	8.0	6.2	9	3	6.9		•
3/8	- 24	100	15	35	10.0	8.0	11	3	8.5		•

UNF

Taps UNF, Spiral Flute, R15 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



Catalogue Code	T274
Discount Group	D0402
Material	HSSE V3
Surface Finish	Brt
Colour Ring & Application	N
Geometry	R15°
Chamfer	Form C / 2.5 x P
Limit & Nut Tolerance	2B

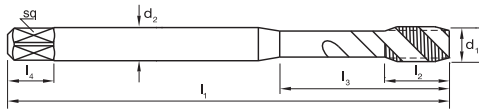
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
7/16	- 20	100	15	-	8.0	6.2	8	3	9.8	•
1/2	- 20	110	18	-	9.0	7.0	10	3	11.5	•
9/16	- 18	110	20	-	11.0	9.0	12	3	12.8	•
5/8	- 18	110	20	-	12.0	9.0	12	3	14.5	•
3/4	- 16	125	25	-	14.0	11.0	14	4	17.5	•
7/8	- 14	140	28	-	18.0	14.5	17	4	20.5	•
1	- 12	160	32	-	18.0	14.5	17	4	23.5	•

UNF

Taps UNF, Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



Catalogue Code											T275
Discount Group											D0402
Material											HSSE V3
Surface Finish											Brt
Colour Ring & Application											N
Geometry											R40°
Chamfer											Form C / 2.5 x P
Limit & Nut Tolerance											2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	
# 2	- 64	45	9	-	2.8	2.1	5	2	1.9	•	
# 3	- 56	50	9	-	2.8	2.1	5	2	2.1	•	
# 4	- 48	56	5	18	3.5	2.7	6	2	2.35	•	
# 5	- 44	56	6	18	3.5	2.7	6	3	2.65	•	
# 6	- 40	56	6	20	4.0	3.0	6	3	2.9	T275 0351	
# 8	- 36	63	7	21	4.5	3.4	6	3	3.5	T275 0417	
# 10	- 32	70	8	25	6.0	4.9	8	3	4.1	T275 0483	
# 12	- 28	80	10	30	6.0	4.9	8	3	4.6	•	
1/4	- 28	80	10	30	7.0	5.5	8	3	5.5	T275 0635	
5/16	- 24	90	13	35	8.0	6.2	9	3	6.9	T275 0794	
3/8	- 24	100	15	35	10.0	8.0	11	3	8.5	T275 0953	

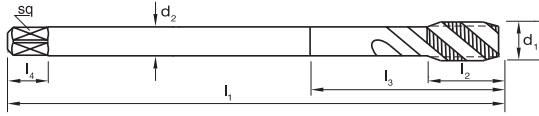
UNF

• Available on request as special manufacture. Subject to lead time.

Taps UNF, Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



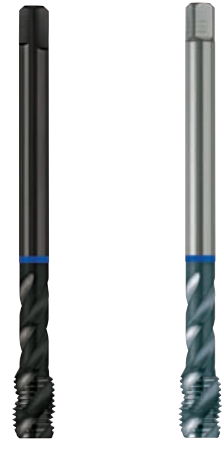
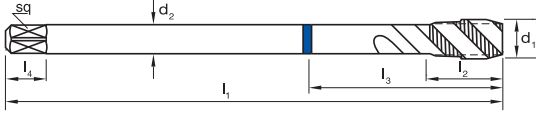
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Discount Group										D0402
Material										HSSE V3
Surface Finish										Br
Colour Ring & Application										N
Geometry										R40°
Chamfer										Form C / 2.5 x P
Limit & Nut Tolerance										2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
7/16	- 20	100	15	-	8.0	6.2	8	3	9.8	T275 1111
1/2	- 20	110	18	-	9.0	7.0	10	3	11.5	T275 1270
9/16	- 18	110	20	-	11.0	9.0	12	3	12.8	•
5/8	- 18	110	20	-	12.0	9.0	12	3	14.5	T275 1588
3/4	- 16	125	25	-	14.0	11.0	14	4	17.5	T275 1905
7/8	- 14	140	28	-	18.0	14.5	17	4	20.5	T275 2223
1	- 12	160	32	-	18.0	14.5	17	4	23.5	•

• Available on request as special manufacture. Subject to lead time.

Taps UNF, Spiral Flute, R45 VADH



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



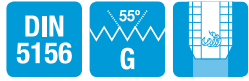
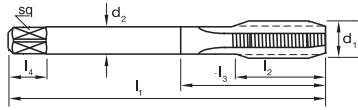
Catalogue Code											T276	T277
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											R45°	R45°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											2B	2B
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
7/16	- 20	100	15	-	8.0	6.2	8	3	9.8		T276 1111	T277 1111
1/2	- 20	110	18	-	9.0	7.0	10	3	11.5		T276 1270	T277 1270
9/16	- 18	110	20	-	11.0	9.0	12	3	12.8	•	•	
5/8	- 18	110	20	-	12.0	9.0	12	3	14.5		T276 1588	T277 1588
3/4	- 16	125	25	-	14.0	11.0	14	4	17.5		T276 1905	T277 1905
7/8	- 14	140	28	-	18.0	14.5	17	4	20.5		T276 2223	T277 2223
1	- 12	160	32	-	18.0	14.5	17	4	23.5		T276 2540	T277 2540

• Available on request as special manufacture. Subject to lead time.

Taps G (BSPF), Straight Flute, N



- General Purpose use in materials up to approx. 1000 N/mm²
- Through & blind holes
- Suitable machine operations
- Depths up to approx. 1 x d₁



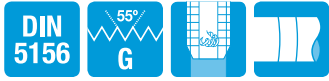
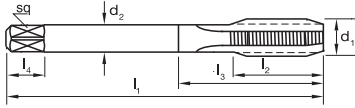
											T304	T305
Catalogue Code											D0402	D0406
Discount Group												
Material											HSSE V3	HSSE V3
Surface Finish											BrT	TiN
Colour Ring & Application											N	N
Geometry												
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228
d₁	TPI	l₁	l₂	l₃	d₂	sq	l₄	z	drill Ø		Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	4	8.8		T304 0973	T305 0973
G 1/4	19	100	22	-	11.0	9.0	12	4	11.8		T304 1316	T305 1316
G 3/8	19	100	22	-	12.0	9.0	12	4	15.3		T304 1666	T305 1666
G 1/2	14	125	25	-	16.0	12.0	15	4	19.0		T304 2096	T305 2096
G 5/8	14	125	25	-	18.0	14.5	17	4	21.0		T304 2291	T305 2291
G 3/4	14	140	28	-	20.0	16.0	19	4	24.5		T304 2644	T305 2644
G 7/8	14	150	28	-	22.0	18.0	21	4	28.5		T304 3020	T305 3020
G 1	11	160	30	-	25.0	20.0	23	4	31.0		T304 3325	T305 3325
G 1-1/8	11	170	30	-	28.0	22.0	25	4	35.5		T304 3790	•
G 1-1/4	11	170	30	-	32.0	24.0	27	6	39.5		T304 4191	•
G 1-3/8	11	180	32	-	36.0	29.0	32	6	42.0		T304 4432	•
G 1-1/2	11	190	32	-	36.0	29.0	32	6	45.5		T304 4780	•
G 1-3/4	11	190	32	-	40.0	32.0	35	6	51.0		T304 5375	•
G 2	11	220	40	-	45.0	35.0	38	6	57.0		T304 5961	•

• Available on request as special manufacture. Subject to lead time.

Taps G (BSPF), Straight Flute, GG



- Use in grey cast iron (GG), brittle plastics, hard bronzes to a hardness of 850 N/mm²
- Through & blind holes
- Suitable machine operations
- Depths up to approx. 1 x d₁



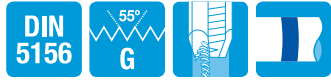
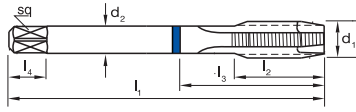
Catalogue Code		T306		T307							
Discount Group		D0402		D0408							
Material		HSSE V3		HSSE V3							
Surface Finish		Ni + Blu		TICN							
Colour Ring & Application		GG		GG							
Geometry		Low Relief		Low Relief							
Chamfer		Form C / 2.5 x P		Form C / 2.5 x P							
Limit & Nut Tolerance		ISO 228		ISO 228							
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	4	8.8	T306 0973	T307 0973
G 1/4	19	100	22	-	11.0	9.0	12	4	11.8	T306 1316	T307 1316
G 3/8	19	100	22	-	12.0	9.0	12	5	15.3	T306 1666	T307 1666
G 1/2	14	125	25	-	16.0	12.0	15	5	19.0	T306 2096	T307 2096
G 5/8	14	125	25	-	18.0	14.5	17	5	21.0	T306 2291	T307 2291
G 3/4	14	140	28	-	20.0	16.0	19	6	24.5	T306 2644	T307 2644
G 7/8	14	150	28	-	22.0	18.0	21	6	28.5	T306 3020	T307 3020
G 1	11	160	30	-	25.0	20.0	23	6	31.0	T306 3325	T307 3325

• Available on request as special manufacture. Subject to lead time.

Taps G (BSPF), Gun, VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Through holes
- Suitable machine operations
- Depths up to approx. 3 x d₁



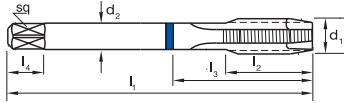
Catalogue Code											T181	T182
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											Special Relief	Special Relief
Chamfer											Form B / 4.5 x P	Form B / 4.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	3	8.8		T181 0973	T182 0973
G 1/4	19	100	22	-	11.0	9.0	12	3	11.8		T181 1316	T182 1316
G 3/8	19	100	22	-	12.0	9.0	12	3	15.3		T181 1666	T182 1666
G 1/2	14	125	25	-	16.0	12.0	15	3	19.0		T181 2096	T182 2096
G 5/8	14	125	25	-	18.0	14.5	17	4	21.0		T181 2291	T182 2291
G 3/4	14	140	28	-	20.0	16.0	19	4	24.5		T181 2644	T182 2644
G 7/8	14	150	28	-	22.0	18.0	21	4	28.5		T181 3020	T182 3020
G 1	11	160	30	-	25.0	20.0	23	4	31.0		T181 3325	T182 3325

G

Taps G (BSPF), Gun, VA PM



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Through holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



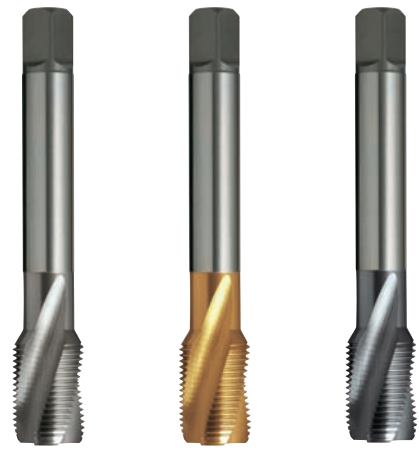
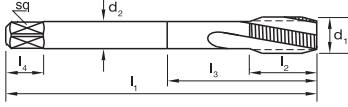
Catalogue Code											T349		T350	
Discount Group											D0402		D0408	
Material											PM-HSSE V3		PM-HSSE V3	
Surface Finish											Blu		TICN	
Colour Ring & Application											VA		VA	
Geometry											Special Relief		Special Relief	
Chamfer											Form B / 4.5 x P		Form B / 4.5 x P	
Limit & Nut Tolerance											ISO 228		ISO 228	
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #		
G 1/8	28	90	20	-	7.0	5.5	8	3	8.8		T349 0973	T350 0973		
G 1/4	19	100	22	-	11.0	9.0	12	3	11.8		T349 1316	T350 1316		
G 3/8	19	100	22	-	12.0	9.0	12	3	15.3		T349 1666	T350 1666		
G 1/2	14	125	25	-	16.0	12.0	15	3	19.0		T349 2096	T350 2096		
G 5/8	14	125	25	-	18.0	14.5	17	4	21.0		T349 2291	T350 2291		
G 3/4	14	140	28	-	20.0	16.0	19	4	24.5		T349 2644	T350 2644		
G 7/8	14	150	28	-	22.0	18.0	21	4	28.5		T349 3020	T350 3020		
G 1	11	160	30	-	25.0	20.0	23	4	31.0		T349 3325	T350 3325		

G

Taps G (BSPF), Spiral Flute, R15N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 1.5 x d₁



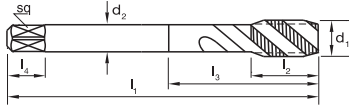
Catalogue Code											T278	T279	T280
Discount Group											D0402	D0406	D0408
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											<i>Brt</i>	<i>TiN</i>	<i>TiCN</i>
Colour Ring & Application											N	N	N
Geometry											R15°	R15°	R15°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228	ISO 228
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	3	8.8		T278 0973	T279 0973	T280 0973
G 1/4	19	100	22	-	11.0	9.0	12	3	11.8		T278 1316	T279 1316	T280 1316
G 3/8	19	100	22	-	12.0	9.0	12	3	15.3		T278 1666	T279 1666	T280 1666
G 1/2	14	125	25	-	16.0	12.0	15	4	19.0		T278 2096	T279 2096	T280 2096
G 5/8	14	125	25	-	18.0	14.5	17	4	21.0		T278 2291	T279 2291	T280 2291
G 3/4	14	140	28	-	20.0	16.0	19	4	24.5		T278 2644	T279 2644	T280 2644
G 7/8	14	150	28	-	22.0	18.0	21	4	28.5		T278 3020	T279 3020	T280 3020
G 1	11	160	30	-	25.0	20.0	23	4	31.0		T278 3325	T279 3325	T280 3325



Taps G (BSPF), Spiral Flute, R40 N



- General purpose use, materials up to approx. 1000 N/mm²
- Blind holes
- Suitable for machine operations
- Depths up to approx. 2.5 x d₁



DIN
5156

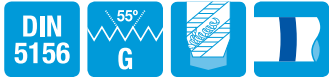
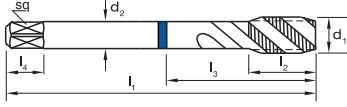


Catalogue Code											T281	T282	T283
Discount Group											D0402	D0402	D0406
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											Brt	Blu	TiN
Colour Ring & Application											N	N	N
Geometry											R40°	R40°	R40°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228	ISO 228
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	3	8.8		T281 0973	T282 0973	T283 0973
G 1/4	19	100	22	-	11.0	9.0	12	3	11.8		T281 1316	T282 1316	T283 1316
G 3/8	19	100	22	-	12.0	9.0	12	3	15.3		T281 1666	T282 1666	T283 1666
G 1/2	14	125	25	-	16.0	12.0	15	4	19.0		T281 2096	T282 2096	T283 2096
G 5/8	14	125	25	-	18.0	14.5	17	4	21.0		T281 2291	T282 2291	T283 2291
G 3/4	14	140	28	-	20.0	16.0	19	4	24.5		T281 2644	T282 2644	T283 2644
G 7/8	14	150	28	-	22.0	18.0	21	4	28.5		T281 3020	T282 3020	T283 3020
G 1	11	160	30	-	25.0	20.0	23	4	31.0		T281 3325	T282 3325	T283 3325
G 1-1/8	11	170	30	-	28.0	22.0	25	4	35.5		•	•	•
G 1-1/4	11	170	30	-	32.0	24.0	27	6	39.5		•	•	•
G 1-3/8	11	180	32	-	36.0	29.0	32	6	42.0		•	•	•
G 1-1/2	11	190	32	-	36.0	29.0	32	6	45.5		•	•	•

Taps G (BSPF), Spiral Flute, R45 VA



- Use in stainless steels and high strength steels up to 1000N/mm²
- Blind holes
- Suitable for synchronous tapping in machine operations
- Depths up to approx. 3 x d₁



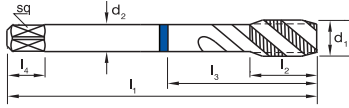
Catalogue Code											T284	T285
Discount Group											D0402	D0408
Material											HSSE V3	HSSE V3
Surface Finish											Blu	TICN
Colour Ring & Application											VA	VA
Geometry											R45°	R45°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	4	8.8		T284 0973	T285 0973
G 1/4	19	100	22	-	11.0	9.0	12	4	11.8		T284 1316	T285 1316
G 3/8	19	100	22	-	12.0	9.0	12	5	15.3		T284 1666	T285 1666
G 1/2	14	125	25	-	16.0	12.0	15	5	19.0		T284 2096	T285 2096
G 5/8	14	125	25	-	18.0	14.5	17	5	21.0		T284 2291	T285 2291
G 3/4	14	140	28	-	20.0	16.0	19	5	24.5		T284 2644	T285 2644
G 7/8	14	150	28	-	22.0	18.0	21	5	28.5		T284 3020	T285 3020
G 1	11	160	30	-	25.0	20.0	23	5	31.0		T284 3325	T285 3325



Taps G (BSPF), Spiral Flute, R50 VA PM



- Use in stainless steels and high strength steels up to 1000N/mm²
- PM-HSSE V3 offers higher edge hardness than standard VA series
- Blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d₁



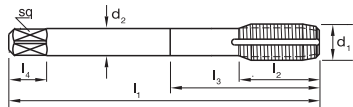
Catalogue Code											T351	T352
Discount Group											D0402	D0408
Material											PM-HSSE V3	PM-HSSE V3
Surface Finish											Blu	TiCN
Colour Ring & Application											VA PM	VA PM
Geometry											R50°	R50°
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228	ISO 228
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø		Item #	Item #
G 1/8	28	90	20	-	7.0	5.5	8	4	8.8		T351 0973	T352 0973
G 1/4	19	100	22	-	11.0	9.0	12	4	11.8		T351 1316	T352 1316
G 3/8	19	100	22	-	12.0	9.0	12	5	15.3		T351 1666	T352 1666
G 1/2	14	125	25	-	16.0	12.0	15	5	19.0		T351 2096	T352 2096
G 5/8	14	125	25	-	18.0	14.5	17	5	21.0		T351 2291	T352 2291
G 3/4	14	140	28	-	20.0	16.0	19	5	24.5		T351 2644	T352 2644
G 7/8	14	150	28	-	22.0	18.0	21	5	28.5		T351 3020	T352 3020
G 1	11	160	30	-	25.0	20.0	23	5	31.0		T351 3325	T352 3325

G

Taps G (BSPF), Forming, Multi Coolant Groove



- For cold forming of threads in materials with good flow characteristics
- BrT - For non-ferrous materials. TiN - For steel materials up to 1000 N/mm²
- TiCN - Suitable for abrasive and difficult materials
- Through or Blind holes
- Suitable for machine operations
- Depths up to approx. 3 x d_1



DIN 2189



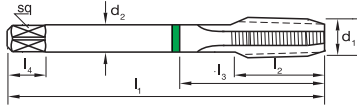
Catalogue Code											T361	T362	T363
Discount Group											D0402	D0406	D0408
Material											HSSE V3	HSSE V3	HSSE V3
Surface Finish											BrT	TiN	TiCN
Colour Ring & Application											N	N	N
Geometry											Multi Groove	Multi Groove	Multi Groove
Chamfer											Form C / 2.5 x P	Form C / 2.5 x P	Form C / 2.5 x P
Limit & Nut Tolerance											ISO 228 X	ISO 228 X	ISO 228 X
d_1	TPI	l_1	l_2	l_3	d_2	sq	l_4	z	drill \varnothing	Item #	Item #	Item #	
G 1/8	28	90	20	-	7.0	5.5	8	9.25		T361 0973	T362 0973	T363 0973	
G 1/4	19	100	22	-	11.0	9.0	12	12.5		T361 1316	T362 1316	T363 1316	
G 3/8	19	100	22	-	12.0	9.0	12	16.0		T361 1666	T362 1666	T363 1666	
G 1/2	14	125	25	-	16.0	12.0	15	20.0		T361 2096	T362 2096	T363 2096	
G 5/8	14	125	25	-	18.0	14.5	17	22.0		T361 2291	T362 2291	T363 2291	
G 3/4	14	140	28	-	20.0	16.0	19	25.5		T361 2644	T362 2644	T363 2644	
G 7/8	14	150	28	-	22.0	18.0	21	29.25		•	•	•	
G 1	11	160	30	-	25.0	20.0	23	32.0		•	•	•	

• Available on request as special manufacture. Subject to lead time.

Taps NPT, Straight Flute, UNI



- Universal use.
- Suitable for materials up to 1000N/mm²
- Through & blind holes



Catalogue Code										T308
Discount Group										D0402
Material										HSSE V3
Surface Finish										Brt
Colour Ring & Application										UNI
Geometry										1:16 Taper
Chamfer										Form C / 2.5 x P
Limit & Nut Tolerance										ANSI B1.20.1
d ₁	TPI	l ₁	l ₂	l ₃	d ₂	sq	l ₄	z	drill Ø	Item #
1/8	27	90	20	-	7.0	5.5	8	4	8.2	T308 1029
1/4	18	100	22	-	11.0	9.0	12	4	10.8	T308 1372
3/8	18	100	22	-	12.0	9.0	12	4	14.0	T308 1716
1/2	14	125	25	-	16.0	12.0	15	4	17.5	T308 2134
3/4	14	140	28	-	20.0	16.0	19	4	23.0	T308 2667
1	11.5	160	30	-	25.0	20.0	23	5	28.5	T308 3340

NPT